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# gastro-ezofagal uri refl uqs daavadeba (gerd) – ramdenad efeqturia ezofagi tTan asoci rebul i gerd-is sawyisi mkurnal oba?

kl inikuri mtkicebul ebani

Paul Moayyedi, Brendan Delaney, David Foreman  
Clinical Evidence, BMJ Publishing Group  
2003 w. (IX gamoSveba)

(moamzada z. kirtavam)

## ZiriTadi debul ebebi

gerd ewodeba gastroduodenuri SigTavsis refl uqss (ukugadmosrol as) sayl apavis sanaTurSi. daavadebis xSiri simptomebia gul Zmarva da regurgitacia. gerd-is kl asifikacia xdeba ezofagogastroskopiis safuZvel ze. sayl apavis distal uri nawil is l orwovanis naxeTqebis aRmoCena ezofagitis niSania, romel ic SeiZl eba Sefasdes l orwovanis naxeTqebis zomisa da raodenobis mixedviT A xarixidan (l orwovanis naxeTqebis zoma < 5mm) D xarixamde (cirkul arul i naxeTqebis arseboba). al ternativas warmoadgens daavadebis simZimis kl asifikacia savari-mil eris mixedviT l dan (xazovani, ara Serwymadi eroziebi) IV xarixamde (mZime ul ceracia anda striqtura).

sixSire: evropisa da aSS monacemebiT popul aciis 20-25%-s gaaCnia gerd-is niSnebi, xol o 7%-s – gul Zmarva. pirvel adi j andacvis qsel is im pacientebidan, romel Tac gerd daudgindaT, 25-40%-s gaaCnia endoskopiurad dadasturebul i ezofagiti, magram umravl esobaSi endoskopiuri cvl il ebi ar eqna aRmoCeni l i.

etiologia da risk-faqtorebi: ar arsebobs mtkicebul eba gerd-is prediqtiul i faqtorebis Sesaxeb. zogierTi avtori Tvl is, rom simsuqne erT-erTi risk faqtoria, magram erTiani azri ar arsebobs. Tambaqo da al kohol i aseve iTvl eba maprovocirebel faqtorebad, Tumca sakmarisi mimoxil viTi masal a jer araa dagrovil i. aseve gamoTqmul i iyo azri, rom zogierTi produqti, rogoricaa yava, pitna, dieturi cximi, citrusebi, an pomidori aseve zrdis gerd-is ganviTarebis Sanss. Tumca, ver iqna mopovebul i saTanado mtkicebul eba am faqtorebis rol is Sesaxebac. arsebobs SemosazRvrul i sabuTi imisa, rom sayl apavis qveda sfinqteris momadunebel i preparetebi, mag. kal ciumis arxis bl okatorebi, xel s uwyoben gerd-s. ori kvl eva amtkicebs, rom gerd-is mimarT SeiZl eba arsebobdes garkveul i genetikuri winaswarganwyoba.

prognozi:

gerd qronikul i paTol ogiaa, da daavadebul Ta 80%-Si mkurnal obis Sewyveta recidivTan asoci rdeba. bevr patients amdenad Wirdeba xangrZl ivi mkurnal oba anda sul ac operacia. endoskopiurad negatiuri gerd stabil uri mdgomareobad rCeba da am pirTa mxol od umciresobaSi SeiZl eba gerd-is arsebobis fonze momaval Si garTul ebebis ganviTareba, rogoricaa sayl apavis striqtirebi an baretis ezofagiti.

## ezofagi t Tan asoci rebul i gerd-is sawyisi mkurnal oba

**efekturoba damtkicebul ia:**

✓ H2 bl okatorebi.

erTi sistemuri mimoxil viT dadginda, rom H2 bl okatorebi sarwmunod zrdian gankurnebis sixSires pl acebosTan SedarebiT, Tumca isini aseve sarwmunod nakl ebad efeqtorebi arian, Tu protonis tumbos inhibitorebs SevadarebT.

✓ protonis tumbos inhibitorebi.

erTi sistemuri mimoxil viT dadginda, rom protonis tumbos inhibitorebi H2 bl okatorebTan da pl acebosTan SedarebiT sarwmunod ufro efeqtorni arian gerd-is gankurnebis mxriv. erTi sistemuri mimoxil viT isic dadasturda, rom ezomeprazol i ufro sarwmunod zrdis 4 kviraSi gerd-is gankurnebis Sanss, vidre omeprazol i. randomizirebul i kl inikuri kvl evebiT (rkk) ar dadasturda am j gufis sxva warmomadgenl ebis efekturobas Soris mniSvnel ovani sxvaobis arseboba.

**efekturoba ucnobia:**

✓ antacidebi/al ginatebi

ori rkk adasturebs, rom antacidebs, pl acebosTan SedarebiT SeuZl iaT gerd-iT gamowveul i simptomebis j amis Semcireba, Tumca amavdroul ad ver iwveven endoskopiuri gaj ansaRebis gaxSirebas. 8kviriani rkk-iT, rodesac erTmaneTs antacidebsa da cimetidins adarebdnen, ar dadasturda endoskopi iT raime sarwmuno gansxvaveba. amavdroul ad 12-kviriani kursis anal iziT dadasturda, rom antacidebi ufro nakl eb efeqtorni arian, vidre ranitidini.

✓ cxovrebis stili

ramdenime rkk-iT ar dadasturda cxovrebis wesis sarwmuno gavl ena gerd-ze.

**araefekturoba anda ziani dadgenil ia:**

✓ motorikis stimul atorebi.

erTi rkk adasturebs cisapridis 12-kviriani kursis sarwmuno gavl enas gerd-is gankurnebaze pl acebosTan SedarebiT, Tumca am waml is gamoyeneba zogierT qveyanaSi SezRudul ia aritmiul i gverdiTi efeqtების გამო.

## **ezofagi t Tan asoci rebul i gerd-is SemarCunebel i mkurnal oba**

**efekturoba dadgenil ia:**

✓ protonis tumbos inhibitorebi.

ramdenime sistemuri mimoxil viT dadginda, rom protonis tumbos inhibitorebi H2 bl okatorebTan da pl acebosTan SedarebiT sarwmunod zrdian remisiis sixSires refl uqs ezofagitis morCenidan 6-18 Tvis ganmavl obaSi. erTi sistemuri mimoxil va

adasturebs, rom l ansoprazol is miRebul i doza (30 mg/dR) iseve efeqturia, rogorc omeprazol i (20 mg/dR) – 12-Tviani remisiis misaRwevad. amavdroul ad naCvenebi iyo, rom ufro dabal i doziT (15 mg/dR) l ansoprazol i CamorCeboda omeprazol isa da ezomeprazol is, iseve rogorc l ansoprazil is miRebul i dozis efeqturobas.

### **sargebel i da ziani TiTqmis Tanabaria**

#### ✓ l aparaskopiul i qirurgia

erTi sistemuri mimoxil viT ver inaxa srul ad Catarebul i rkk-ebi sadac es sakiTxi iqneboda Seswavl il i. ori rkk-iT ver iqna nanaxi raime sarwmuno gansxvaveba l aparaskopiul Tu Cveul ebriv qirurgiul midgomas Soris 3-24 Tviani remisiis Tval sazrisiT. erTi rkk-iT aRmoCnda, rom l aparaskopiul qirurgias nakl ebi garTul eba axasiaTebis, vidre Ria qirurgias.

#### ✓ Ria qirurgia

ramdenime rkk-iT dadasturda qirurgiul i wesiT (nisenis fundopl ikacia) mkurnal obisas ukeTesi remisია 3-38 Tvis ganmavl obaSi SedarebiT medikamentozur mkurnal obasTan. Tumca, ufro xangrZI ivi dakvirvebisas (10 wl is Semdeg) ver iqna nanaxi raime sarwmuno sxvaoba mkurnal obis qirurgiul Tu Terapiul wess Soris.

#### **efeqturoba ucnobia:**

#### ✓ antacidebi/al qinatebi

ver iqna nanaxi raime rkk, romel ic aCvenebda antacidebs xangrZI iv efeqts gerd-ze.

#### ✓ cxovrebis stili

ver iqna nanaxi rkk-iT cxovrebis wesis sarwmuno gavl enaze gerd-is xangrZI iv menejmentSi.

#### **araefeqturoba anda ziani dadgenilia:**

✓ motorikis stimul atorebi.

# meningokokuri daavadeba

## kl inikuri mtkicebul ebani

Meningococcal Disease: What are the effects of treatments?

J Correia and C A Hart

Clinical Evidence, BMJ Publishing Group

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moamzades z. kirtavam, m. kobaI aZem

## ganmarteba

meningokokuri daavadeba warmoadgens *Neisseria meningitidis* (*meningococcus*) A, B, C j gufis, an sxva seroj gufebis mier gamowveul nebis mier kl inikur mdgomareobas. es mdgomareoba moicavs Cirqovan koni unqtivits, septiur arTrits, meningits da septicemias meningitis Tanxl ebiT an mis gareSe.

## SemTxvevebi/gavr cel eba

meningokokuri daavadeba sporadul ia zomier qveynebsi da umetesad gamowveul ia B an C j gufis *meningococci*-s mier. did britaneTsi misi SemTxvevebi meryeobs 2-dan 8 SemTxvevamde/100 000 adamianze da aSS-Si ki 0,6-1,5/100 000 adamianze wl iurad. daavadebis gadacemas adgil i aqvs oj axis wevrebs, skol is moswavl ebs da saerto sacxovrebel Si mcxovre studentebSoris. sub-saharul (saharis samxreTIT) mdebare afrikaSi mudmivad mZvinvarebs epidemia seroj guf A-sarsebobis gamo. amas ki gansakuTrebiT im qveynebsi aqvs adgil i, roml ebsac dasavl eTiT gambia, xol o armosavl eTiT – eTiopia esazRvrebAT, (e.w. `meningitis sartyel i"), sadac epidemiis dros SemTxvevaTa maCvenebel i 100 000 adamianze 500 SemTxvevas arwevs.

## etiologia/risk-faqtorebi

*Meningococcus*-iT inficirdeba j anmrTel i adamiანი da is gadadis axl o kontakTIT: savaraudod, zeda sasunTqi gzebis sekreciis Sedegad gamoyofil i nivTierebebiT. daavadebis gadacemis riski yvel aze maRal ia kontakTis Semdgom pirvel kviraSi. risk-faqtorebSi Sedis: xal xiT savse oTaxSi yofna da sigaretis kvaml is gavl ena. 2 wl amde asakis bavSvebSi SemTxvevaTa ricxvi Zal ze maRal ia, amis Semdeg daavadeba piks 15-24 wl is asakSi arwevs. amJamad, meningokokuri daavadebis SemTxvevaTa ricxvi maRal ia universitetis studentebS, gansakuTrebiT I kursel ebs da saerto sacxovrebel Si mcxovre studentebSoris. Tumca, mkvl evarebma ver daadgines axl o kontakTsi myof adamiანebSoris meningokokuri daavadebis riskis zusti maCvenebel i, magal iTad; saerto sacxovrebel Si mcxovre studentebSi, ZiriTad mosaxl eobastan SedarebiT, axl o kontakTi mainc warmoadgens am adamiანebSi daavadebis riskis zrdis ganmapirobebel faqtors. Bj gufis meningokokTan SedarebiT, epidemiis gavr cel ebas ufro metad A da C j gufis meningokokebis mier gamowveul i daavadeba iwvevs.

არ არის ცნობილი, რა იწვევს meningococcus-ის ვირულ ენობას, მაგრამ გარკვეული კლინიკური მონაცემები გარკვეულ დროს და გარკვეულ ჯგუფებს იზენიანებს ვირულ ენობას. ადამიანთა 10-15%-ს აჩვენებდა meningococcus-ის ვირუსი; ვირულ ენობის meningococcus-ის აქტივობის შესაძლებლობის ინვაზიური დაავადების რისკი.

## პროგნოზი

სიკვდილიანობის მაჩვენებელი ყველაზე მაღალია ცხელი სეზონის და მოზარდებს და დაავადების ფორმასთან: septicemia-ის დროს სიკვდილიანობის აჩვენებდა 19-25%-ს, meningitis + septicemia-ის დროს – 10-12%-ს, ხოლო მხოლოდ meningitis-ის დროს, სიკვდილიანობის მაჩვენებელი 1%-ზე დაბალია.

## რა სარგებელია მოავსებელი მკურნალობა?

სავარაუდოდ სარგებელია:

### ❖ პროფილ აქტიური ანტიბიოტიკების გამოყენება

მკვლევების შედეგად randomization-ის კლინიკური კვლევები (rct) აჩვენებდა, რომ კონტაქტის შემთხვევაში meningococcus-ის დაავადების რისკი შემცირდება პროფილ აქტიური ანტიბიოტიკების გამოყენების შემთხვევაში. rct-ის შედეგად არაა მისაღებია, ვინაიდან intervention-ის დაავადების რისკი უმნიშვნელოა, ხოლო meningitis-ის დაავადების რისკი მაღალია. დაავადების შემთხვევაში გამოყენებული ანტიბიოტიკები ამცირებენ meningococcus-ის დაავადების რისკს. თუმცა, მკვლევების შედეგად ამტკიცებულია, რომ თუ რაიმე შემთხვევაში მისაღებია კონტაქტის შემთხვევაში პროფილ აქტიური მკურნალობა.

## ეფექტურობა უცნობია

❖ ანტიბიოტიკების გამოყენება ყველაზე მაღალია meningococcus-ის დროს. (ანტიბიოტიკები სარგებელია ამცირებენ ყველაზე მაღალია meningococcus-ის დაავადების რისკს შემცირებაში)

randomization-ის კონტროლირებული კვლევების შედეგად აჩვენებდა, რომ placebo-სთან შედარებით, ანტიბიოტიკები პაციენტთა დიდ რაოდენობაში warm-ის შემთხვევაში meningococcus-ის ვირუსი. თუმცა სადარდისოდ ვერ იხილება რაიმე მტკიცებულება, რომ ამიტომ მცირდება meningococcus-ის დაავადების რისკი.

### ❖ საქმის შემთხვევაში parenteral-ური ანტიბიოტიკების მისაღებად დანიშნულია

მკვლევების შედეგად აჩვენებდა, რომ ანტიბიოტიკების მისაღებად დანიშნულია შემთხვევაში meningococcus-ის დაავადების შემთხვევაში. rct-ის შედეგად არაა მისაღებია, რამდენად meningococcus-ის დაავადება ზოგადად ადამიანში მაღალია

swrafad viTardeba. mkurnal obis gverdiTi movl enebis riski sakmaod dabal ia, xol o mkurnal obis dagvianebis Sedegad moasl odnel i safrTxe – sakmaod maRal i. kvI evebis umetesobam TiTqos aCvena antibiotikebis sargebel i, magram sul mcire, erTma kvI evam mainc sawinaaRmdego Sedegebi moitana.

rkk - randomizirebul i kl inikuri kvI evebi



# axal Sobil Ta uecari sikvdil is sindromi

Sudden Infant Death Syndrome – What are the effects of interventions to reduce the risk of sudden infant death syndrome?

**kl inikuri mtkicebul ebani**

David Creery and Angelo Mikrogianakis  
Clinical Evidence, BMJ Publishing Group  
2003 w. (IX gamoSveba)

*moamzades z. kirtavam, m. kobaI aZem*

## **ganmarteba**

axal Sobil Ta uecari sikvdil is sindromi ewodeba erT wl amde asakis axal Sobil Ta uecar sikvdil s, romel ic auxsnel i rCeba kl inikuri istoriis ganxil visa, sikvdil is da gvamis Semowmebis Semdegac ki.

## **SemTxvevebi/gavrCel eba**

axal Sobil Ta uecari sikvdil is sindromis SemTxvevaTa raodenoba icvl eba droTa ganmavl obaSi da agreTve sxvadasxva qveyanaSi misi maCvenebel i sxvadasxvaa. 1996 wl is monacemebiT, yovel 1000 dabadebul bavSvze axal Sobil Ta uecari sikvdil is sindromis maCvenebel i aseTia: hol andia: 0,3; iaponia: 0,4; kanada: 0,5; ingl isi da uel si: 0,7; aSS: 0,8; avstral ia: 0,9.

## **etiologia/risk-faqtorebi**

ganmartebis Tanaxmad, axal Sobil Ta uecari sikvdil is sindromis gamomwvevi mizezi ucnobia. dakvirvebebma aCvena, rom arsebobs garkveul i kavSiri axal Sobil Ta uecari sikvdil is sindromsa da iseT risk-faqtorebs Soris, rogoricaa: pirqve/gul daRma wol a, Tambaqos moxmareba prenatal ur da postnatal ur periodSi, axal Sobil Ta rbil l oginSi dawvena, hiperTermia/ZI ierad SefuTva, axal Sobil Ta mozdil Tan erTad (erT sawol Si) moTavseba, (gansakuTrebiT mwevel dedasTan erTad), axal Sobil Ta xel ovnuri kveba.

## **prognozi**

Tumca, axal Sobil Ta uecari sikvdil is sindromis ganmartebidan gamomdinare, prognozis gakeTeba Znel ia, misi SemTxvevebi savaraudod izrdeba aseTi Cvil ebis da-Zmebs Soris.

## **ra Sedegebs iZI eva intervenciebi axal Sobil Ta uecari sikvdil is sindromis riskis SemcirebaSi?**

### **sasargebl oa**

- ❖ axal Sobil Ta gul daRma daZineba saxifaToa

dakvirvebebis Sedegad Catarebul i kvl evis arasistemuri ganxil visa da 11 damatebiTi kvl evis ganxil vis Sedegad aRmoCnda, rom bavSvebis daZinebam piriT zemoT Seamcira axal Sobil Ta uecari sikvdil is sindromis SemTxvevebi. randomizirebul i kontrol irebul i kvl evebis Catareba araa mosal odnel i.

### **savaraudod sasargebl oa**

#### **❖ rCeva Tambaqos moxmarebis Sewyvetis Sesaxeb**

dakvirvebebeze dafuZnebul i kvl evebis erTi arasistemuri ganxil visa da 3 damatebiTi dakvirvebiTi kvl evis ganxil vis Sedegad aRmoCnda, rom axal Sobil Ta uecari sikvdil is sindromis risk-faqtorebis Semicirebis kampanias, maT Soris Tambaqos moxmarebis Sewyvetis Sesaxeb rCevas, mohyva axal Sobil Ta uecari sikvdil is sindromis SemTxvevaTa ricxvis Semicireba. randomizirebul i kontrol irebul i kvl evebis Catareba araa mosal odnel i.

### **efeqturoba ucnobia**

#### **❖ rCeva axal Sobil is mozrdil Tan erTad daZinebis winaaRmdeg**

erTi dakvirvebiTi kvl evis Sedegad dadginda, rom axal Sobil Ta uecari sikvdil is sindromis risk-faqtorebis Semicirebis kampanias, maT Soris rCevas - axal Sobil is mozrdil Tan erTad daZinebis winaaRmdeg, mohyva axal Sobil Ta uecari sikvdil is sindromis SemTxvevaTa ricxvis Semicireba. randomizirebul i kontrol irebul i kvl evebis Catareba araa mosal odnel i.

#### **❖ rCeva gadaxurebisa da ZI ierad SefuTvis Tavidan acil ebis Sesaxeb**

dakvirvebebis Sedegad Catarebul i kvl evebis erTi arasistemuri mimoxil visa da erTi damatebiTi dakvirvebiTi kvl evis ganxil vis Sedegad dadginda, rom axal Sobil Ta uecari sikvdil is sindromis risk-faqtorebis Semicirebis kampanias, maT Soris rCevas - axal Sobil Ta ZI ierad SefuTvis Tavidan acil ebis Sesaxeb, - mohyva axal Sobil Ta uecari sikvdil is sindromis SemTxvevaTa ricxvis Semicireba. randomizirebul i kontrol irebul i kvl evebis Catareba araa mosal odnel i.

#### **❖ rCeva ZuZuTi kvebis Sesaxeb**

dakvirvebebis Sedegad Catarebul i kvl evebis arasistemuri ganxil visa da 2 damatebiTi dakvirvebiTi kvl evis ganxil vis Sedegad dadginda, rom axal Sobil Ta uecari sikvdil is sindromis risk-faqtorebis Semicirebis kampanias, maT Soris rCevas - ZuZuTi kvebis Sesaxeb - mohyva axal Sobil Ta uecari sikvdil is sindromis SemTxvevaTa ricxvis Semicireba. randomizirebul i kontrol irebul i kvl evebis Catareba araa mosal odnel i.

❖ rCeva axial Sobil Ta r bil l oginSi dawwenis winaaRmdeg;

mkvl evarebma azriT sadReisod ar arsebobs axial Sobil Ta uecari sikvdil is sindromis prevenciaSi maT r bil l oginSi ardawwenis sargebl is damamtkicebel i rai me sabuTi.

## qronikul i disfagiis kvl eva da marTva

paul a l esli, paul n. kardingi, janet a. nil soni  
BMJ, 2003, t. 326, 22 Teberval i, gv. 433-436 ©

M

special istTa mul tidiscipl inarul i gundis droul i Carevis Sede gad SesaZI ebel ia qronikul i disfagiis garTul ebebis Tavidan acil eba an mdgomareobis gaumj obeseba da am farTod gavr cel ebul i da mra val ferovani paTol ogiiT ganpi robebul i sirTul eebis daZI eva.

disfagia yl apvis gaZnel ebaa, rac SeiZI eba ganpi robebul i iyos ne bismieri struqturiT tuCe bida n kuWis kardial ur nawil amde. misi gamomwvevi mizezebi metad mra val ferovania da moicavs mwvave cerebral uri mdgomareobebis farTo areal s, progresirebad paTol ogiebs da travmas, oro-faringo-ezofagal uri traqtis daavadebebsa Tu operaciul Carevis Sedegebs (cxril i 1). didi britaneTis j andacvis departamentis monacemebiT 2001-2002 wl ebSi ingl issa da uel sSi disfagis pirvel adi diagnozi 23000 SemTxvevaSi daisva, xol o hospital Si gatarebul i sawol -dReebis ricxvma 76000 miaRwia. Tumca es monacemebic ki srul ad ver asaxavs j andacvis xarj ebs disfagiasTan mima rTe baSi. am mimoxil vis mizania Seaj amos monacemebi disfagiis gavr cel ebis, mizezebisa da riskis Sesaxeb da miawodos mkiTxvel s detal uri Tanamedrove informacia qronikul i disfagiis SemTxvevaSi kvl evis meTodebisa da marTvis strategiebis, maT Soris - mul tidiscipl inarul i midgomis - aucil ebl obis Sesaxeb.

### **mTavari Tezisebi**

- **disfagia gul isxmobs yl apvis gaZnel ebas, rac SeiZI eba gamowveul i iyos zeda gastrointestinal uri traqtis ne bismieri struqturiT - tuCe bida n sayl apavis qveda sfinqteramde.**
- **disfagiis mizezebi moicavs mwvave cerebrul paTol ogias an travmas, oro-faringo-ezofagal uri daavadebebsa da qirurgiul i manipul acias.**
- **disfagiis mniSvnel oba metad didia pacientTa marTvis, gamosavl isa da j andacvis xarj ebis Tval sazrisiT**
- **disfagiis adreul gamovl ine ba, swori Sefaseba da droul i Careva pirvel adi mniSvnel obis da yvel a kl inicistis amocanaa.**

### **l iteraturul i Ziebis wyaroebi da da maTi SerCevis kriteriუმები**

terminebis: `yl apva-, `disfagia- da `gad ayl apva- gamoyenebiT ganxorciel da Zieba PubMed-is, Medline-is, OVID-isa da CINAHL- is monacemTa baze bSi. Sej erda da gaerTiane bul iqna farTo informacia ZiriTadi (sakvanZo) teqstebidan da Tanamedrove momoxil vebidan. kvl evis yvel a avtori mWi drod TanamSroml obs da CarTul ia im mozrdil pacientTa marTvis procesebSi, romel Tac yl apvis paTol ogia aReniSnebaT. maT aqvT agreTve gamocdil eba komprometirebul i yl apvis SemTxvevaSi zemo sasutqi gzebis drekadi endoskopiT kvl evaSi, agreTve videofl uoroskopi asa, manometri asa da reabil itaciaSi.

cxril i 1

## disfagiis ZiriTadi mizezebi

- gastro-ezofaguri refl uqsi - gul Zmarva, regurgitacia, gamowveul i striqturiTa da motorikis darRveviT;
- axal azia -k l asikur SemTxvevaSi Sveba moaqvs bikarbonatul sasmel is miRebas;
- motorikis (peristal tikis) darRveva - SesaZl oa dakavSirebul i iyos tkivil iTan gul mkerdis Sua areSi, sistemur daavadebeebTan (skl erodermia, dermatomioziti);
- sayl apavis kibo - progresirebadi, aRiniSneba wonaSi kl eba;
- **Tavis da kisris midamos kibo - aRiniSneba tkivil i, disfagia, yuris tkivil i, pacientTa 90% -ze meti Tambaqos mwevel ia, xSirad - al kohol is Warbad momxmarebel i;**
- xaxis paTol ogiuri jibe - nel a progresirebadi, aRiniSneba regurgitacia, yuryuri (nax. 1);
- **dabrkol ebis SegrZneba - SeuZl ia gadayl apos mxol od mcire ul ufebi, `ar SeuZl ia tabl etebis gadayl apva-;**
- insul ti;
- **neirodegeneraciul i paTol ogiebi - parkinsonizmi, motorul i nervebis daavadebebi, gafantul i skl erozi, miasTenia;**
- presbifagia (moxucebul obiTi sayl apavi)

## gavr cel ebis sixSire da mizezebi

sayl apavis sqvamosuri karcinomis sixSire farTo areal Si meryeobs da ganviTarebul qveynebsi Seadgens 10/100000, xol o aziaSi -150/100000. dasavl eT samyarosi sayl apavis adenokarcinomis sixSire onkol ogiur daavadebaTa Soris erT-erTi yvel aze swrafad mzardi macvenebl iT xasiaTdeba. ZiriTadad avaddebian mamkacebi (7:1), misi xvedriti wil i sayl apavis kibos sxvadasxva formebs Soris 34%-s Seadgens. baretis ezofagitiT daavadebul ebSi adenokarcinomis ganviTarebis riski asjer ufro xSiria. demografiul macvl il ebebma populaciis asakobriv profil Si im adamianta ricxvis zrda gamoiwvia, romel Tac asakTan dakavSirebul i daavadebebis, mag. parkinsonizmis ganviTarebis maral i riski aqvT. disfagiit rTul deba insul tis SemTxvevaTa 2/3, amastanave dadgenilia disfagiis kavSiri sasuntqi sistemis infeqciebis ganviTarebasTan insul tis dros. Ffiziol ogiuri dabereba gavl enas axdes yl apvis procesze (presbifagia), rasac SeiZl eba seriozul i Sedegebi hqondes. amastan, yl apvasTan dakavSirebul i asakobrivi cvl il ebebi SesaZl oa organul paTol ogiaSi SegveSal os. `moxucebul Ta saxl ebis- kontingentis 50%-ze mets aReniSnebaT kvebasTan dakavSirebul i siZnel eebi, disfagia an orive erTad. xol o gadaudebel i mizezebis gamo hospital izirebul i geriatriul pacientebis disfagia 30%-Si aReniSnebaT. garTul ebis saxiT disfagia gvaxdeba agreTve gafantul i skl erozis, Tavis tvinis travmul i dazianebsa da sxvadasxva fsiqiatრიul i paTol ogiebis dros. disfagiis mizezebi da Sedegebi imdenad mraVal feroVania, rom pacientis marTva bevrad ukeTesad iq xerxdeba, sadac mTel i rigi sxvadasxva samedicino dargebis xel misawvdomi qsel ia, rogoricaa: gastroenterol ogia, otol aringol ogia, enisa da metyvel ebis Terapia, dietol ogia da nevrol ogia.

cxril i 2

disfagiisa da aspiraciis simptomatika da obieqturi monacemebi (gasinj vis Sedegebi)

***pirvel adi mniSvel obis simptomebi***

- yl apvis gaZnel eba
- gul Zmarva
- xvel a an moxrCobis SegrZneba yl apvis win, yl apvisas da mis Semdeg
- "gl obusi" (gunda)
- "Zvel i" sakvebis regurgitacia
- nazal uri regurgitacia
- obstruqciis (dabrkol ebis) SegrZneba
- wonaSi dakl eba

***nakl ebad mniSvel ovani simptomebi***

- kvebis xasiaTis Secvl a – mag. nel i Wama an sazogadoebrivi Tavyril obebisaTvis Tavis arideba
- yel is xSiri "Cawmenda"
- sakvebis akrZal va
- kvebis drois gaxangrZl iveba
- sasunTqi sistemis morecidive infeqciebi
- sunTqvis tipis Secvl a yl apvis Semdeg
- atipiuri tkivil i gul mkerdis areSi
- "svel i" xma (Wet voice quality)

***obieqturi (gasinj viT miRebul i) sakvanZo monacemebi***

- angul arul i stomatiti, gl ositi
- wyl ul ebi an SeSupeba piris RruSi an xaxis da xorxisa midamoSi (Tavisa da kisris kibo)
- warmonaqmnebi kisris midamoSi (cervikal uri I imfadenopatia, obstruqciul i Ciyvi)
- auxsnel i temperaturul i pikebi, "svel i" an Caxl eCil i xma (aspiracia)
- enis fascikul acia (motorul i nervebis dazianeba)
- xmovaniiogebis dambli a (cervikal uri an Torakal uri neopl azia)

**yl apvis fiziol ogiuri meqanizmebi**

yl apvis aqtSi gansakuTrebul i mniSvel oba eniWeba mis si swrafesa da kompl eqsurobas, radganac adamiansi anatomiurad zemo sasunTqi da kvebis traqti saerToa. amitomac aucil ebel ia, rom yl apvis momentSi sunTqva SeCerebul i iyos.

**Civil ebi da kl inikuri gamovl inebebi**

Aavadmyofebis mier mowodebul i informacia metad sayuradReboa da xSirad izl eva dazianebis l okal izaciis dazustebis saSual ebas. Tumca aRiniSneba tendencia pacientebis mier bl okis donis miTiTebisa dazianebis axl os an ufro zevi T. amasTanave cervikal uri simptomebi SeiZl eba aRiniSnos nebismier doneze sayl apavis qvemo spinqteramde.

disfagiis dros ucxo masal is aspiraciam namdvil i xmovani iogebis qvemoT (cxril i 2) SesaZl oa pacientTa daaxl oebi T 75%-Si garTul ebebi gamoiwvios, rac asocierebul ia pnevmoniisa da uecari sikvdil is riskTan, upirvel esad ki im pacientebSi, romel Tac dizarTria aReniSnebaT. aspiraciis ganvitarabis yvel aze mniSvel ovan symptoms warmoadgens xvel a yl apvis Semdeg, Tumca sxva nakl ebad

gamoxatul i ni Snebic SeiZl eba aRiniSnos.AamasTan dadgenil ia, rom radiol ogiurad dadasturebul SemTxvevaTa 50%-Si aspiracia "farul ia "da kl inikuri gamovl inebebi ar aRiniSneba.

gl obusis (yel Si raRacis " gaCxeris" an "gundis") SegrZneba SesaZl ebel ia disfagiaSi SegveSal os. tipiurad pacientebz zemoTaRni Snul i Civil ebi e.w. mSral i (nerwyvis) gadayl apvisas aReniSnebaT, mizanimarTul i gamokiTxviT ki dgindeba, rom maT sakvebis pasaJis WeSmariTi gaZnel eba ar aReniSnebaT da dietis modificirebis saWi roeba ar arsebobs.

### **pacientTa gamokvl eva**

anamnezis detal uri Sekrebam da gasinj vam SesaZl oa kl inicists wamyvani paTol ogiis gamovl enis saSual eba misces (cxril i 3, marj vena nawil i). am SemTxvevaSi paciенти konsul taciisTvis Sesabamis special istTan igzavneba. ucnobi etiolo giis disfagia ki, rasakvirvel ia, diagnozis dasadgenad kidev ufro detal ur kvl evas moiTxovs (cxril i 3, marcxena nawil i). Tu disfagiuri Civil i (sakvebis dabrkol eba) l aviwis qvemoT aRiniSneba, naCvenebia gastrointestinal uri endoskopiis an bariumiT retgenol ogiuri kvl evis Catareba.

### **endoskopia**

endoskopiis upiratesobas warmoadgens potenciurad histolo giuri diagnozis dasmis SesaZl ebl oba. drekadi (flexible) endoskopiT kvl evisas, rac moicavs sayl apavis daTval ierebas, biofsias, an dil atacias, sayl apavis perforaciis ganvitarebis sixSire 2.6% Seadgens.

### **Bbariumis gadayl apva**

bariumiT kvl eva ufro xel misawvdomia da SeuZl ia gamoavl inos sayl apavis cervikal uri nawil is dazianebani, rogoricaa dabrkol ebis SegrZneba an paTol ogiuri jibe, magram beWdiseburi xrtil is qvemoTa kibo SeiZl eba ver iqnas aRmoCeni l i. Aam proceduris Catareba ukunaCvenebia aspiraciaze eWvis SemTxvevaSi: bariumis saSual ebiT gamosaxul i sasurvel i sayal apavis nacvl ad SesaZl oa metad efeqturi, magram friad saxi faTo- bronqograma mi vi RoT.E

### **ezofagal uri manometria**

E motorul darRvevebze eWvis SemTxvevaSi ezofagal uri manometria kvl avac arCevis meTodad aris aRiarebul i. Mmanometriis saSual ebiT SesaZl ebel ia movaxdinoT iseTi iSviaTi paTol ogiebis kl asificireba, rogoricaa axal azia da sayl apavis difuzuri spazmi, an kidev gamovavl inoT SedarebiT xSiri araspecificiuri dismotorul i paTol ogiebi, roml ebic uSual od r eqvemdebarebian farmakolo giuri saSual ebebiT mkurnal obas, magram gaumj obeseba SesaZl ebel ia miRweul iqnas maTTan dakavSirebul i refl uqsisa da fsiqiatრიul i darRvevebis mkurnal obis meSveobiT.

Tanamedrove manometriul i xel sawyoebi, aRWurvil i komputerul i CamwerebiT, gamoirCevian swrafi reagirebiTa da maRal i mgrZnobel obiT, rac saSual ebas iZl eva davafiqsiroT faringo-ezofagal ur segmentSi movl enaTa metad swrafi Tanamimdevroba. aman SesaZl ebel i gaxada manometriis ambul atoriul ad Catareba, rac gansakuTrebiT Rirebul ia im pacientebis gamokvl evisas, romel Tac periodul i simptomebi aReniSnebaT, mag. - tkivil i gul is areSi. ambul atoriul i pHmonitorireba dResac oqros standartia im SemTxvevaSi, rodesac disfagiis savaraudo mizezad refl uqsi ganixil eba. igi agreTve Rirebul ia atipiuri simptomatikis mqone pacientebisatvis an refl uqsis sawinaaRmdego mkurnal obis uSedegobisas.

### **OptikurboWkovani (Fibreoptic) kvl eva**

Cveul ebriv, kl inicisti konsul tantis arCevans saukeTeso varaudiT akeTebz. aris Tu ara gamovl enil i paTol ogia cervikal uri (otolo aringolo giuri) Tu igi

sayl apavis qvemo nawil idan momdinareobs (gastroenterol ogiuri)? pacientebis e.w. maRal i disfagiit, roml ebic gagzavnil ia yuris, cxvirisa da yel is gamosakvl evad, amave dros pirus Rrusa da kisris modamos gamokvl evac utardebaT.

zemoAaerodigestiuri traqtis kibos diagnostika dasrul ebul ad iTvl eba hipofaringisa da xaxis optikurboWkovani kvl evis Catarebis Semdeg.Aam meTodiT SeiZl eba gamovl indes `aRmaval i tal Ris- ("rising tide") simptomi, romel ic xorxis divertikul ze miuTitebs, magram ver gamoavl indeba postkrikoidul i (postericoid) - beWdisebri xrtil is Semdgomi kibo.

xmovani iogebis dambli a (parezi) miuTitebs adgil obrivad simsvnur procesze an Suasayaris gafarToebaze, mag. sayl apavis simsvnis gamo. I aringofaringeal ur neopl aziaze eWvis mitanis SemTxvevaSi Semdgomi kvl eva anesTeziis qveS tardeba da kompiuterul i tomografiis Catarebaa naCvenebi.

### **yl apvis kl inikuri Sefaseba**

funqciuri disfagia, organul i (struqturul i) orofaringeal uri disfagiisagan gansxvavebiT, yl apvis aqtis specifiur dinamiur Seswavl as moiTxovs. es moicavs yl apvis aqtis garegnul kl inikur Sefasebas da saWiroebisas - videofl uoroskopiuri an optikurboWkovani endoskopiuri kvl evis Catarebasac. zogierT SemTxvevaSi enisa da metyvel ebis special istma SeiZl eba eWvi miitanos aqamde j er kidev aradiagnoscirebul paTol ogiaze. am SemTxvevebSi yl apvis aqtis Sefasebis paral el urad rekomendirebul ia pacientis gagzavna Sesabamis special istTan sakonsul taciud.

Yyvel aze sasurvel ia, yl apvis kl inikuri Sefaseba enisa da metyvel ebis special istis mier ganxorciel des, rac saSual ebas iZl eva srul fasovnad Sefasdes orofarengial uri disfagiis buneba da zemoqmedeba, ganxorciel des aspiraciis riskis skringi. kvl evis mTavari komponentebis: 1)anamnezis detal uri Sekreba im faqtorebis gamosavl enad ,roml ebic yl apvis aqtze axdenen zemoqmedebas 2) pacientis zogadi fizikuri da fsiquri statusis Sefaseba 3) oromotorul i gamokvl evebi maT Soris specifiuri moZraobebis siZl ierisa da sifarTis Sefaseba, 4) pacientis yl apviT bol usebze dakvirveba zomebisa da konsistenciis kontrol iT. orofaringeal uri SegrZnebebis Seswavl a detal uri gasinj vis gziT yl apvis paTol ogiis metad mgrZnobiare prediqtoria; mxol od gag (sacobi, burTi) refl eqsis arseboba/ararsebobs dafiqsirebac ki metad mniSvnel ovania.

**tipiuri gamokvl eva iwyeba pacientisaTvis erTi Cais kovzi wyl is micemiT da dakvirvebiT yl apvis oral ur fazaze; yl apvis drois aRricxva (dawyeba dagvianebis gareSe); I aringeal uri el evaciisa da koordinirebul i moZraobebis Sefaseba; bol os ki aspiraciis niSnebis gamovl ena yl apvis win, yl apvis dros da mis Semdeg (cxril i 2). Cvenebebis arsebobisas xdeba 100 ml wyl is micema yl apvaze xangrZl ivad dakvirvebis mizniT. Sefaseba kvl av zemoTaRweril i TanmimdevrobiT xdeba. amave dros akvirdebian Tu ra siswrafiT da ra rodenobis siTxis miReba SeuZl ia patients. nebismier etapze gamovl enil i dabkol eba aspiraciis riskze miuTitebs. saWiroebis SemTxvevaSi ufro saeWvo bol usebic anal ogiurad gamoikvl eva.**

### **yl apvis videofl uoroskopiul i kvl eva**

yl apvis videofl uoroskopiul i kvl evis anu videofl uoroskopiis srul yofil ad Catareba konsul tanti radiol ogisa da enisa da metyvel ebis special istis erTobl ivi muSaobiTaa SesaZl ebel i. erTdroul i (real ur droSi ganxorciel ebul i) radiografiul i imij ingi iZl eva yl apvis procesSi monawil e yvel a struqturis, moZraobebisa da koordinirebul i moqmedebebis Seswavl is saSual ebas. orofaringeal uri an ezofagal uri paTol oganatomyuri cvl il ebebis dadgena swrafad da martivadaa SesaZl ebel i. videofl uoroskopia iZl eva saSual ebas uSual od adgil ze davafiqsirod aspiraciis mizezi, gvexmareba efeqturi farmakol ogiuri preparatebis, agreTve sakvebis rekomendirebul i konsistenciisa da kvebis dros pacientisaTvis



xel sayrel i pozis SerCevaSi. iseve rogorc yl apvis kl inikuri Sefasebisas bol usis tipebis da zomebis speqtri sistematurad unda isazRvrebodes. im SemTxvevaSi Tu videofl uoroskopiis misawvdomoba SezRudul ia, prioriteti eniWeba rTul SemTxvevebs, rodesac mxol od yl apvis kl inikuri SefasebiT pacientis mdgomareobis adeqvaturi Sefaseba da marTva ver xerxdeba. sul ufro metiMtkicebul ebaa imis Sesaxeb, rom radiol ogiuri kvl eviT aRmoCeni i aspiracia ucil obl ad ar miuTiTebis kl inikur garTul ebebsa da potenciurad cud Soreul gamosaval ze. amitom igi unda gamoviyoT, rom dadgindes aspiraciis mizezi da ara mxol od aspiraciis arseboba.

### **FoptikurboWkovani (fibroptic) endoskopia**

OoptikuriboWkovani endoskopia sasurvel ia Catardes enisa da metyvel ebis special istTan erTad mier da gul isxmobs drekadi endoskopis gatarebas cxviris RruSi, raTa vizual urad Sefasdes xorxisa da xaxis funqciuri mdgomareoba. endoskopiuri kvl eviT yvel aze ukeTasad diagnoscirdeba: sasismieri funqcia, xmovaniFnakecis moZraoba da daxurva, yl apvis Semdgomi narCeni movl enebis xarisxi da l okal izacia, agreTve fasdeba xaxisa da xorxis mgrZnobel oba. endoskopiuri meTodebi iZl eva saSual ebas sakmaod maRal i sizustiT gamovavl inoT yl apvis wina an Semdgomi aspiracia. marTal ia, yl apvis momentSi aspiracia videofl uoroskopi iT ukeTasad dgindeba, endoskopia, videofl uoroskopiisagan gansxvavebiT, SesaZl ebel ia gamoyenebul iqnas mravl obiTi an seriul i gamokvl evebisatvis da gamosaval ze dakvirvebis miZniT.

### **marTvis gegmis Camoyal ibeba**

avadmyofis marTva efuzneba anamnezs, kl inikuri kvl evis Sedegebsa da prognozs da individual uria yovel i pacientis SemTxvevaSi (cxril i 3). wamyvani paTol ogiis mkurnal oba aucil ebel ia, magram amastanave unda gaviTval iswinoT, rom efeqturi marTvis gareSe disfagia, nakvebobisa da hidrataciis xarisxze zegavl enis gamo, nebismieri Carevis komprometirebas moaxdens. mal nutricia da dehidratacia amZimebs pacientis fizikur mdgomareobas, Sedegi ki suboptimal uri reabilitaciis procesia, rTul i da gaxangrZl ivebul i gamoj anmrTel ebiT. disfagiis araadeqvaturi mkurnal oba kidev ufro xel s uwyobs am procesebis gaxangrZl ivebas.

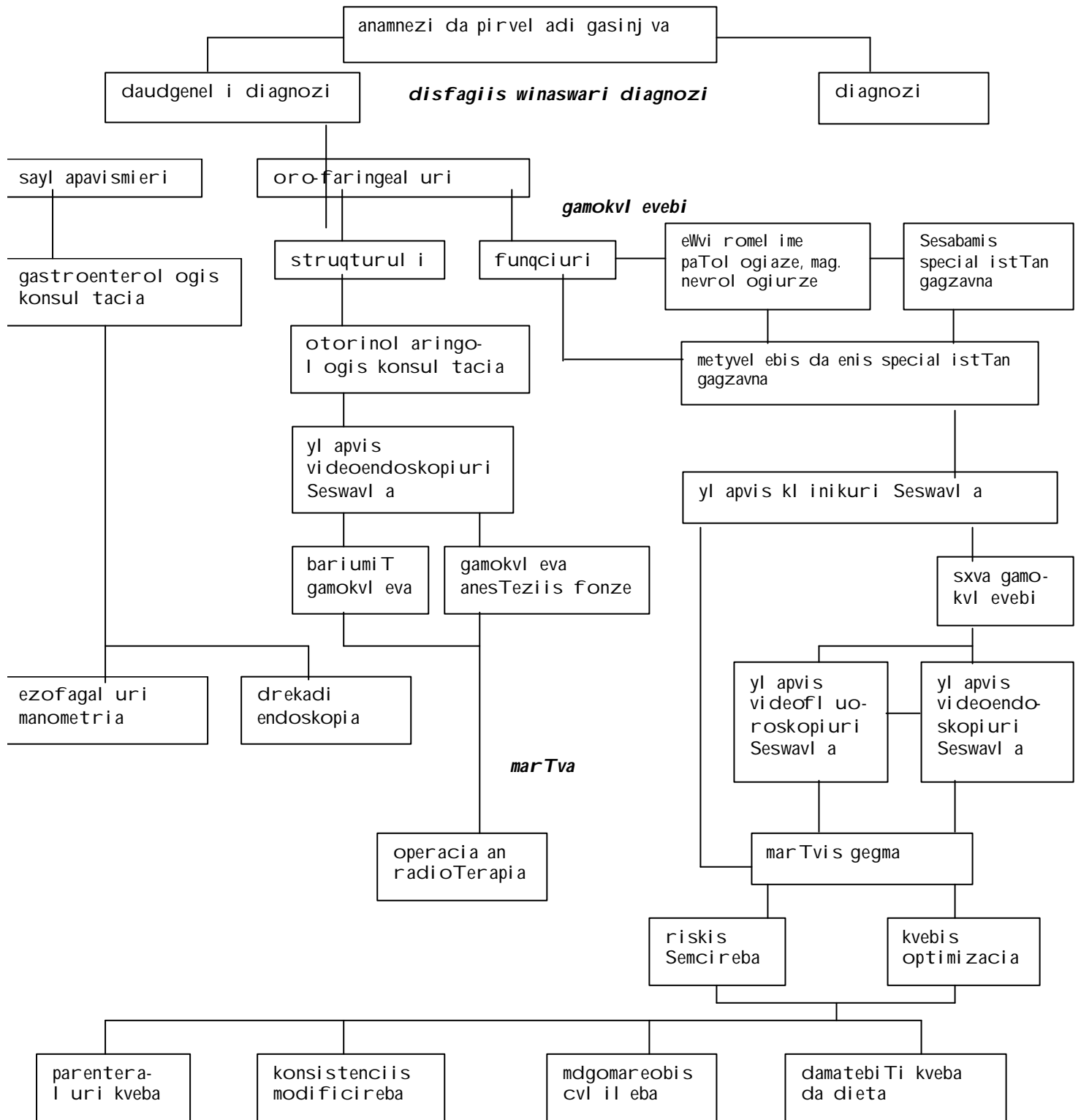
dabal i nakvebobis adami nebSi yl apvis dekompensaciis riski maRal ia, rasac disfagi amde miyavarT.Yyl apvis kl inikuri Sefaseba gamoiyeneba iseTi usafrTxo modificirebul i dietebis gansasazRvrad, romelic Seamcirebs mal nutricia da dehidratacias. es SeiZl eba gul isxmobdes a)oral uri kvebis akrZal vas da mxol od enteral ur kvebas, b)sakvebis miRebis mxol od oral ur gzas an g)bal ansis miRwevas am ors Soris. maSin rodesac oral uri gziT sakvebis miReba SeuZl ebel ia, Tundac mcire xniTac ki, enteral ur kvebas upirvel esi mniSvnel oba eniWeba nutricia i statusis SenarCunebaSi. Sesabamisad dietoTerapevtis aqtiuri CarTva am procesSi aucil ebel ia.

mul tidisciplinarul i qsel is arseboba metad mniSvnel ovania disfagi iT Sepyrobil i pacientebis marTvisas. droul ma Carevam SesaZl oa Tavidan agvacil os an Seamsubuqos disfagiis garTul ebebi. kl inicisti, roml is Mmetvel yureobis qveSaca patienti, zogadi praqtikis eqimi iqneba igi, Tu hospital is TanamSromel i, aq warmodgenil i rekomendaciebiT sargebl obis SemTxvevaSi Tavis wvl il s Seitans am procesebSi. aman ki disfagi iT Sepyrobil i pacientTa raodenobis da daavadebis xangrZl ivobis Semcireba, pacientis movl is optimizacia da j andacvis yvel a muSakis tvirtis Semsubuqeba unda gamoiwios.

cxril i 3

**kvL evisa da marTvis al goriTmi disfagiis dros**

*pirvel adi gasinj va*



**Investigation and Management of Chronic Dysphagia**

P. Leslie, PN Carding, JA Wilson.

BMJ, 2003; 326(22 Feb):433-6.

Dysphagia represents common disorder with multiple causes, requiring thorough investigation and at th same time is related with substantial healthcare cost. The review article summarises the incidence, causes and risks of dysphagia and provides detailed update on investigation (including barrium swallow, videofluoroscopic and videoendoscopic swallow studies, flexible endoscopy, esophageal manometry), as well as management strategy. Comprehensive flow chart (algorythm) for the investigation and management of dysphagia is provided and discussed. An importance of multidisciplinary approach is emphasized.

# herpes zosteris da postherpesul i nevrāl giis mkurnal oba

robert j onsoni, robert dvorkini  
BMJ 2003; 326:748-50 ©

herpes zosteri 85 wl amde mosaxl eobis naxevars aReniSneba da xangrZI ivi avadoba SeuZI ia gamoiwvios. saTanado mkurnal oba xsnis mwvave simptomebs da Soreul i garTul ebebis risks amcirebs. imunokompetentur pacientTa Soris yvel aze gavr cel ebul garTul ebas Semawuxebel i da zogj er auxnel i qronikul i tkivil i warmoadgens. prioritets prevencia da mkurnal oba unda Seadgendes. zosteris SemTxvevaTa umetesobas ambul atoriul ad SeiZI eba vumkurnal oT, amitom daavadebis safuZvl ian codnas gadamwyveti mniSvnel oba eniWeba.<sup>1</sup> qvemoT herpes zosterisa da postherpesul i nevrāl giis Tanamedrove mkurnal oba iqneba ganxil ul i.

## mTavari Tezisebi

- herpes zosteris saTanado mkurnal obas SeuZI ia mwvave simptomebis gakontrol eba da Soreul i garTul ebebis riskis Semicreba.
- postherpesul i nevrāl giis risk faqtorebis codnas SeuZI ia maTi prevenciis dagegmvaSi dagvexmaros.
- zosterisa da postherpesul i nevrāl giis SemTxvevebis umravl esoba SeiZI eba pirvel adi j andacvis doneze iqnas marTul i.

## ra aris herpes zosteri?

herpes zosteris iwvevs Cutyvavil as zosteris (Varicela Zoster) I atenturi virusis gavr cel eba dorzal uri an kranial uri nervebis gangl iebidan, sadac is Cutyvavil as pirvel adi infeqciis Semdeg xvdeba.<sup>2</sup> pirvel adi infeqciis Semdeg virusi al baT xSirad aqtiurdeba, magram kompetenturi uj redul i imuniteti kl inikuri daavadebisagan gvicavs. es asimptomuri gaaqtiveba da Cutyvavil as mqone adami anebTan kontaqti ki imunitets aZl ierebs.<sup>3</sup> zomieri kl imatis pirobebSi Cutyvavil a Cveul ebriv bavSvTa asakis daavadebas warmoadgens, xol o tropikul i kl imatis pirobebSi, gansakuTrebiT izol irebul i dasaxl ebis dros, ufro xSirad mozardTa da mozrdil Ta Soris gv xvdeba. zosteri orive SemTxvevas SeiZI eba mohyves. misi sixSire 1000 kacze wl iurad 1.2-3.4-s Seadgens.<sup>4</sup> es sixSire asakTan erTad mkveTrad matul obs: Tu bavSvebSi erTs ar aRemateba, 65 wl is zemoT 12-s aRwevs.<sup>4</sup>

I atenturi virusis gamwvavebis ZiriTad mi zezs asakTan erTad uj redul i imunitetis daqveiTeba warmoadgens. sxva riskis faqtorebs Seadgens imunitetis daqveiTeba zogierTi simsiwnis (mag. I imfoma), simsiwnis mkurnal obis (qimioTerapia an radioTerapia), adami anis imunodeficitis virusi T infeqciisa da immunosupresiul i saSual ebebis gamoyenebis (organoTa transpl antaciis Semdeg an daavadebaTa samkurnal od) gamo. popul aciis daberebisa da zemoaRniSnul i daavadebebis da mkurnal obis meTodebis zrdasTan erTad mosal odnel ia zosteris sixSiris mateba. amerikis SeerTebul StatebSi mimarTaven bavSvTa vaqcinacias Cutyvavil as winaaRmdeg cocxal i Sesustebul i vaqcinis meSveobiT. vaqcinis viruss I atenciisa da reaqtivaciis nakl ebi unari gaaCnia, amitom vaqcinacias SeuZI ia zosteris sixSire Seamciros.<sup>5</sup> sanam es moxdeba, zosteri SeiZI eba gaxSirdes

© aRniSnul i masal is gamoqveyneba SeTanxmebul ia British Medical Journal-is reda qci asTan

kidac, radgan popul aciaSi bavSvTa Cutyvavil as gaiSviaTeba specifiuri imunitetis stimula acias nakl ebad moaxdens da l atenciis SenarCunebas xel s veRar Seuwyobs. Cutyvavil a-gadatanil i asakovani mozdil ebis vaqcinacia ganxil vis sagans warmoadgens da zosteris prevencias an Sesustebas amanac SeiZl eba Seuwyos xel i.<sup>6</sup>

### **mwvave daavadebis mkurnal oba**

zosters bevri seriozul i garTul eba gaaCnia (Tval is, Sinagani organoebis, Tavis tvinis, motorul i), magram imunokompetentur mozdil ebSi yvel aze xSiria postherpesul i nevril gia – tkivil i, romel ic gamonayaris gaqrobidan mraval i Tvisa da wl is manZil ze grZel deba. Tumca postherpesul nevril gias sxvadasxvanairad ganmartaven, Tanamedrove monacemebi ganasxvaveben mwvave herpesul nevril gias (gamonayaris gaCenidan 30 dRis ganmavl obaSi), qvemmwvave herpesul nevril giasa (gamonayaris gaCenidan 30-120 dRis ganmavl obaSi) da postherpesul nevril gias (tkivil i gamonayaris gaCenidan 120 dRis Semdeg kvl av rCeba).<sup>7,8</sup> postherpesul i nevril gias riskis yvel aze cnobil faqtorebs xandazmul i asaki, zosteris dros mwvave tkivil is simZime, gamonayaris simZime da gamonayaris winamorbedi tkivil i warmoadgens.<sup>4</sup> riskis yvel a am faqtoris mqone patients gamonayaris gaCenidan 6 Tvis Semdeg tkivil is darCenis 50-75% riski gaaCnia.

### **grZel vadiani prognozi da mkurnal oba**

herpes zosteris mqone patientebi mwvave simptomebis kontrol sa da garTul ebebis prevencias saWiroeben. cal keul i strategiis riskis, xarj isa da sargebl is Sefasebis dros mwvave simptomebis simZime da garTul ebaTa riskis faqtorebi unda gaviTval iswinot. 50 wel ze ufro meti asakis patientebis, miuxedavad riskis sxva faqtorebisa, postherpesul i nevril gias gacil ebit didi riski aReniSnebaT da Sesabamis mkurnal obas saWiroeben. antivirusul i saSual ebebi - acikl oviri, famcikl oviri da val acikl oviri - Trgunaven Cutyvavil a-zosteris virusis gamravl ebas da amcireben zosteris simZimes: virusis gavrCel ebis xangrZl ioba kl ebul obs, gamonayaris Sexorceba Cqardeba, mwvave tkivil is simZime da xangrZl ivoba ki mcirdeba.<sup>2</sup> mwvave infeqciis simZimisa da mis mier gamowveul i nervul i dazianebebis Semsuubuqeba postherpesul i nevril gias al baTobas amcirebs. randomizebul ma gakontrol ebul ma kvl ebebma da meta-anal izebma zosteris antivirusul i mkurnal obis mier tkivil is xangrZl ivobis Semokl eba daadastures. 5 pl aceboti gakontrol ebul i kvl evis meta-anal izma aCvena, rom acikl ovirit namkurnal eb patientTa Soris eqvsi Tvis Semdeg tkivil is SemTxvevebis al baTobaTa fardoba 0.54 Seadgenda (sarwmunoebis 95% interval i 0.36-0.81).<sup>9</sup> cal ke aRebul i kvl ebebis Sedegebi SeiZl eba sakamaTo iyos, magram monacemTa erTgvarovneba antivirusul i saSual ebis gamoyenebis mZl avr arguments warmoadgens. prowaml ebi val acikl oviri da famcikl oviri kl inikur praqtikaSi SesaZl oa aRematebodnen acikl ovirs (romel sac oral uri miRebis Semdeg cudi biomisawvdomoba gaaCnia), radgan patientebis dReSi 5 dozis miRebas 3 urCevniaT.

imunokomprometirebul pirebs garTul ebis meti riski gaaCniaT da SeiZl eba intravenur i acikl oviri dasWirdeT. zosterma, romel ic samwvera nervis pirvel Stos, gansakuTrebit ki nazocil iarul tots azianebs (cxviris wveris mimdebare gamonayari), Tval is erTi an meti komponentis mwvave dazianeba SeiZl eba gamoiwvios da mxedvel obas samudamo xifaTi SeiZl eba Seuqmnas. aseT dros ofTal mol ogis konsul tacias da antiretrovirusul mkurnal obas mimarTaven. herpes zosteris dros kortikosteroidebis izol irebul i gamoyeneba rekomendebul i ar aris, magram antivirusul TerapiasTan erTad isini aCqareben sicocxl is daavadebamdel i xarisxis aRdgenas postherpesul i nevril gias maRal i riskis mqone patientTa Soris.<sup>2</sup> antivirusul i waml ebi mwvave tkivil sac amcireben, Tumca anal getikebisa da mZl avri opiatebis gamoyenebac SeiZl eba dagWirdes.

### **xangrZl ivi prognozi**

miuxedavad adeqvaturi antivirulus i Terapiisa, zosteris mqone pacientTa nawil i gaxangrZl ivebul tkivil s mainc ucivis. 50 wel ze ufro meti asakis pacientTa 20%-s, miuxedavad val acikl oviriT an famcikl oviriT mkurnal obisa, gamonayaris gaCeni dan 6 Tvis Semdeg tkivil i kvl av aReniSneba. zosteris dros amitriptil inis, iseve rogorc opioiduri anal getikebisa da gabapentinis damateba postherpesul i nevrал giis risks amcirebs.<sup>10</sup> mwvave zosteris invaziuri mkurnal oba (somaturi an simpaTikuri nervebis bl okada) kamaTis sagans warmoadgens.<sup>11</sup> zosteris mkurnal obis recenzirebul i gaidl ainebic arsebobs.<sup>12</sup> unda wavaxal isoT adreul i dabruneba Cveul i social uri da saSinao aqtivobisadmi.

dadgenil i postherpesul i nevrал gia SeiZl eba auxsnel i darCes da mniSvnel ovani uunaroba da tanj va gamoiwvios xandazmul i pacientis sicocxl is bol o wl ebSi. pirvel i rigis mkurnal oba medikamentur saSual ebebTan erTad fsiqosocial uri faqtorebis yuradRebasac gul isxmobs. pacients bunebrivi qsovil isagan damzadebul i tansacml is tareba da social uri da fizikuri aqtivobis SenarCuneba unda vurCioT. Tu tricikl uri antidepressantis (sasurvel ia nortriptil ini) an gabapentinis saTanado doza sasurvel Sedegs ar gvaZl evs, mZl avri opiatu (oqsikodini, morfina an meTadoni) unda vixmaroT. tricikl uri antidepressanti an gabapentini sami pacientidan daaxl oebiT erTs Svel is. xSirad mimarTaven kombinirebul mkurnal obas, rasac mxars uWers neiropaTiul i tkivil is mraval mxrivi SesaZl o meqanizmi, Tumca am midgomis efeqturoba j er araa gamokvl eul i. yvel a zemoaRniSnul i wamal i mWidro meTval yureobas moiTxovs, radgan xandazmul i pacientebisaTvis seriozul i xifaTis motana SeuZl iaT.<sup>10,13</sup> oral ur miRebas bevri gverdiTi moqmedeba gaaCnia da pacientebi ufro danyol i iqnebian, Tu mkurnal obis arss avuxsniT da da dozas zustad SevurCevT. cal keul i ukumoqmedeba SeiZl eba gavaneitral oT kidec: mag. xel onvuri nerwyvis sprej tricikl uri antidepressantebiT gamowveul i piris simSral is dros.

adgil obrivi aneTetikis (5% lidokaina) safeni tkivil s minimal uri ukumoqmedebis fasad xsnis da xSirad oral ur medikamentebTan erTad gamoiyeneba.<sup>10,13</sup> zogj er aseve efeqturi SeiZl eba aRmoCndes kapsaicinis an aorTql ebad nivTierebaSi (mag. acetoni) gaxsnil i aspirinis adgil obrivi gamoyeneba.<sup>13</sup> uSedego mkurnal obis Semdeg meTil prednizol onis intraTekul i Seyvana erTob winaaRmdogobriv strategias warmoadgens. Tumca Sedegi cudi ar unda iyos da garTul ebac bevri ar aris, seriozul i garTul ebebis riski aferxebs am mkurnal obis gamoyenebas, vidre efeqturoba da avadobis ararseboba ar dadasturdeba kargad dagegmil i kvl evebis meSveobiT.<sup>14</sup>

postherpesul i nevrал giis adreul i mkurnal oba efeqturobiT gviandel s aRemateba.<sup>15</sup> Tumca am mosazrebas dadastureba esaWiroeba, qronikul i tkivil i sasurvel ia rac SeiZl eba adre moixsnas. herpes zosterisa da postherpesul i nevrал giis mqone pacientTa Soris tkivil is moxsna pirvel adi rgol is eqimsac SeuZl ia. Tu zemoaRniSnul i pirvel i rigis medikamentebi herpes zosteris mwvave tkivil s an postherpesul i nevrал giis qronikul tkivil s swrafad da efeqturad ver xsnian, sasurvel ia tkivil is special ists an tkivil is mkurnal obis centrs mivmarToT. es tkivil is Semcirebisa da pacientis sicocxl is xarisxis gaumj obesebis saSual ebas mogvcems.

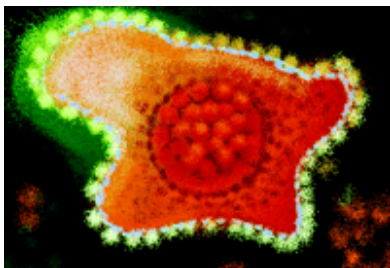
*statia Targma k. papoSvil ma*

**internetSi arsebul i axal i gaidl ainebi Tanmxl ebi faqtebiT da sxva informacia**

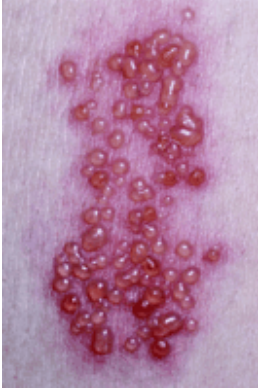
- herpesis marTvis saerTasoriso forumi (IHMF) [www.IHMF.org](http://www.IHMF.org)
- varicel a-zoster virusis kvl evis fondi (VZVRF) [www.VZVfoundation.org](http://www.VZVfoundation.org)

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Cutyvavil as zosteris virusis transmissiul i el eqtronul i mikrografia



herpes zosteris infecciiT gamowweul i gamonayari

### **Treatment of Herpes Zoster and Postherpetic Neuralgia**

Robert W Johnson, Robert H Dworkin

BMJ 2003; 326:748-50

Postherpetic neuralgia after herpes zoster can considerably affect quality of life. Appropriate treatment of herpes zoster can control acute symptoms and reduce the risk of longer term complications. Knowledge of risk factors for postherpetic neuralgia can provide a rationale for their prevention. Most cases of zoster and postherpetic neuralgia can be managed in primary care.



# Rrma venaTa Trombozis diagnozi, gamokvl eva da mkurnal oba

kl aiv tovi, siuzen uaieti  
BMJ 2003; 326:1180-4<sup>©</sup>

Targmna k. papoSvil ma

venuri Tromboembol iuri daavadeba ganviTarebul qveynebSi yovel wl iurad 1000 kacidan daaxl oebiT erTs aReniSneba.<sup>1</sup> igi Cveul ebrivad fexis Rrma venaTa Trombozis saxiT vl indeba, Tumca Rrma venaTa Trombozi sxva venebSiC SeiZl eba aRiniSnos (Tavis tvinis parkuWi, xel ebi, badura da j orj al i).

Rrma venaTa Trombozis gamosaval i Trombis srul da usimptomo gawovasa da fil tvis embol izmiT gamowveul sikvdil s Soris meryeobs. Rrma venaTa TromboziT gamowveul i avadoba moicavs post-Trombozul sindroms, romel ic qronikul i venuri hipertenzi iT gamowveul i kiduris tkivil is, SeSupebis, hiperpigmentaciis, dermatitis, wyl ul is, venuri gangrenisa da l ipodermatoskl erozis saxiT vl indeba.

yvel aze gavrcel ebul Civil s warmoadgens qvemo kiduris tkivil i an wva, romel ic farTo diferenciul diagnozs saWiroebs (cxril i 1). cal ke aRebul arcerT gamokvl evas Rrma venaTa Trombozis diagnozis ideal uri Tvisebebi (100% mgrZnobel oba da specifiuroba, dabal i fasi, riskis arqona) ar gaaCnia da xSirad Tanmimdevrul i an erTdroul i saxiT ramdenime testi gamoiyeneba.

dabal i mol ekul uri wonis heparinebis danergvis Semdeg SesaZl ebel i gaxda Rrma venaTa Trombozs ambul atoriul ad vumkurnal oT. winamdebare mimoxil va qvemo kidurebis Rrma venaTa Trombozis diagnozisaTvis gankuTvnil gamokvl evebsa da mis Semdgom mkurnal obas eZRvneba.

## **diagnostikuri meTodebi**

### kl inikuri diagnozi

qvemo kidurebis Rrma venaTa Trombozis kl inikuri diagnozi saimedo ar aris. cal keul niSnebsa da simptomebs mcire Rirebul eba gaaCniaT, xol o homanis niSani faseul i ar aris.<sup>2,3</sup>

SemuSavda da did seriaSi prospeqtul ad Sefasda kl inikuri model i, romel ic patientebs anamnezisa da kl inikuri niSnebis safuZvel ze Rrma venaTa Trombozis ganviTarebis maRal i, saSual o da dabal i al baTobis j gufebs miakuTvnebs.<sup>4</sup> es kl inikuri model i gamoyenebul i iqna diagnostikur al goriTmebSi Rrma venaTa Trombozis dasadgenad xmarebul i sadiagnozo testebis raodenobis Semcirebis mi zn iT.<sup>4,6</sup>

### Rrma venaTa Trombozis skringisaTvis gankuTvnil i testebi

didi xania cdil oben SeimuSaon maRal i uaryofiT i prediqtiul i (prognozul i) Rirebul ebis mqone testi, romel ic daavadebis gamoricxvis saSual ebas mogvcems da sxva gamokvl evaTa saWiroebas Seamcirebs. amisaTvis saWiroa swrafi, saimedo, arainvaziuri da iafi testi, romel ic saavadmyofoSi misvl isTanave SeiZl eba Catardes. bol o wl ebSi gansakuTrebul i juradReba D-dimeris testsa da pl etizmografias eTmoba (cxril i 2).

### *D-dimerul i testebi*

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<sup>©</sup> aRni Snul i masal is gamoqveyneba SeTanxmebul ia British Medical Journal-is redaqciasTan

pl azmis D-dimerebi fibrinis specifiur j varedinad SekavSirebul derivativebs warmoadgenen da fibrinis pl azminad daSl isas warmoiqmnebian, ami tom venuri Tromboembol izmis dros maTi koncentracia matul obs. miuxedavad venuri Tromboembol izmis mimarT mgrZnobel obisa, D-dimerebis maRal i koncentracia arasakmarisad specifiuria dadebiTi diagnozis dasasmel ad, radgan sxva darRvevebis drosac aRiniSneba (mag. avTvissebiani simsi vne, orsul oba, operaciis Semdgomi periodi). amave dros, D-dimeris sinj ebs Cveul ebriv maRal i uaryofiTi prediqtiul i Rirebul eba gaaCniat, daavadebis gamoricxvis mizniT gamoiyenebian da kl inikur al baTobasTan, pl etizmografiasTan an ul trasonografiasTan kombinaciaSi gamosaxviTi kvl evis saWiroebas amcireben.<sup>5-8</sup>

kl inikaSi D-dimeris mraVal i sinj i gamoiyeneba. amaTgan ori farTod aris Seswavl il i: es aris VIDAS-is enzimTan dakavSirebul i imunisorbentul i anal izi (ELISA), romel ic l laboratorii pirobebSi xorciel deba, da SimpliRED-is mTI iani sisxl is agl utinaciis sinj i.<sup>9,10</sup> SimpliRED-is sinj i Tvisobriv pasuxs gvaZl evs (dadebiTi an uaryofiTi) 10 wuTis ganmavl obaSi da pacientis sawol Tan SeiZl eba gamoviyenoT. D-dimeris imunogramatografiul i sinj i (Simplify), romel ic bol o xans iqna mowodebul i, aseve pacientis sawol Tan SeiZl eba ganxorciel des, magram misi sargebl ianoba j er Seswavl il i ar aris. arsebobs garkveul i monacemebi imis Taobaze, rom D-dimeris koncentracia antikoagul aciis periodis Semdegac unda ganisazRvros, raTa ganmeorebiTi Trombozis riski SevafasoT.<sup>11</sup>

### *pl etizmografia*

pl etizmografia gansazRvravs kiduris zomis cvl il ebas, romel ic qsovil ovani siTxis an venebSi dagrovil i sisxl is mier aris gamowveul i. es gansazRvra sxvadasxva gziT xorciel deba: fotopl etizmografia, tenziometria da el eqtrul i winaRoba.

*cifrul i fotopl etizmografia* – fotopl etizmografia eriTrociTTa hemogl obinis mier sinaTI is absorbcias emyareba. cifrul i fotopl etizmografia mikroprocesoris meSveobiT xorciel deba da advil i Casatarebel ia.<sup>12</sup> cifrul i gadamcemi dazianebul i fexis medial ur zedapirze, koWidan 10 sm-iT maRI a TavSdeba (naxati 1). pacienti aTj er xris fexs muxl Si standartul i oqmis Sesabamisad da Semdeg 45 wami isvenebs. arekl il i sinaTI is maxasiaTebli ebis safuZvel ze gamoiangariSeba xel axal i venuri avsebis dro, romel ic grafikis saxiT warmogvidgeba (naxati 2). 100 stacionarul i pacientis gamokvl eviT, 20 wamze ufro meti xel axal i venuri avsebis dro Rrma venaTa Trombozs gamoricxavs (mgrZnobel oba 100% da specifiuroba 47%).<sup>12</sup> Tumca cifrul i fotopl etizmografia skringisaTvis gankuTvnil tests warmoadgens, misi sargebl is zusti SefasebisaTvis ufro masStaburi kvl evebi aris saWiro.

*kompiuterizebul i tenziometrul i pl etizmografia* - kompiuterizebul i tenziometrul i pl etizmografia sazRvravs wvvis zomis cvl il ebebs, romel ic manJetis gaberviT gamowveul venur Segubebas mosdevs.<sup>13</sup> okl uziis moxsnis Semdeg wvvis zomis Semcireba venuri gadinebis Sefasebis saSual ebas gvaZl evs. j ansaRi venuri sistema swrafi dacl iT xasiaTdeba. proqsimal uri venebis Trombozul i okl uzia gadinebis Seferxebas iwvevs. tenziometris dakal ibrebisa da fexSi sisxl is nakadis gazomvisaTvis kompiuterul i programebi gamoiyeneba. mTel i procedura 15 wuTs moicavs da minimal ur trainings saWiroebs. 307 pacientis gamokvl evam gamoavl ina 90% mgrZnobel oba proqsimal uri (muxl qveSa an barZayis venebi) Rrma venaTa TrombozisaTvis da 66% mgrZnobel oba distal uri (wvvis vena) Rrma venaTa TrombozisaTvis.<sup>13</sup>

*impedansuri pl etizmografia* – impedansuri pl etizmografiis principi is aris, rom fexSi arsebul i sisxl is raodenoba gansazRvravs sisxl is mier el eqtrul i nakadis gatarebis unars, romel ic wvvis gaswrviv moTavsebul i ori el eqtrodis Sua arsebul i winaRobis ukuproporciul ia. barZayis garSemo moTavsebul i manJetis gaberviT axSoben venur, magram ara arteriul nakads. manJetis qvemoT sisxl is Segubeba xdeba da wvvis el eqtrodebs Soris arsebul i winaRoba mcirdeba. manJetis uecari moSvebiT fexSi arsebul i sisxl is

raodenoba kl ebul obs da winaRoba swrafad izrdeba. Rma venaTa TromboziT gamowweul i obstruqcia aferxebs venur dacl as da winaRobis nel i zrdiT gamovl indeba. impedansuri pl etizmografia operatorze aris damokidebul i da dabal i mgrZnobel obiT xasiaTdeba.<sup>14</sup> zogierTi centri mas D-dimerul sinj ebTan erTad iyenebs.<sup>7</sup>

### Rma venaTa Trombozis zusti diagnozi

Rma venaTa Trombozis zusti diagnozisaTvis gamoyenebul i kvl evebi Trombis vizual izacias axdenen (cxril i 3). maT Soris aris kontrastul i venografia, ul trasonografia, kompiuterul i tomografia da birTvul -magnituri rezonansi.<sup>1,2,5</sup>

#### *venografia*

Rma venaTa Trombozis diagnozis oqros standart kontrastul i venografia warmoadgens.<sup>15</sup> samwuxarod, es procedura invaziur xasiaTs atarebs, misi ganxorciel eba yovel Tvis ver xerxdeba da al ergiul i reaqqiis an venuri Trombozis mcire riskiT xasiaTdeba. naxati 3 warmogvidgens venogramas, romel ic muxl qveSa Rma venis Trombozs asaxavs.

#### *ul trasonografia*

ul trasonografia saukeTeso arainvaziur sadiagnozo meTods warmoadgens. venografiasTan Sedarebam proqsimal uri Rma venaTa Trombozis dros daaxl oebiT 97% mgrZnobel oba da specifiuroba gamoavl ina.<sup>14</sup> samwuxarod, ul trasonografia sando ar aris wvvis venaTa Trombozis dros, roca mgrZnobel oba 75%-s ar aRemateba.<sup>14</sup> amJamad sami ul trasonografiul i teqnika gamoiyeneba.

*kompresiul i ul trasonografia* – venuri Trombozis diagnozis yvel aze martiv ul trasonografiul kriteriums warmoadgens sisxl ZarRvis narCeni arakompresirebadi sanaTuri sonografis gadamcemis msubuqi zewol is qveS (kompresiul i ul trasonografia). Tu dawol isas sanaTuri saerTod ar vizual izdeba, vena srul ad kompresirebadad miCneva, rac venuri Trombozis arsebobas gamoricxavs.

*dupl eqsuri ul trasonografia* – pacientTa gamokvl eva iseve xdeba, rogorc Cveul ebrivi kompresiul i ul trasonografiis dros. garda amisa, sisxl is nakadis Sefaseba pul suri dopl erul i signal iTac xorciel deba. normal ur venebSi sisxl is nakadi sunTqvis Sesabamis fazur xasiaTs atarebs da ul trabgeriT gadamcemis distal urad manual uri kompresiis meSveobiT SeiZl eba gaZl ierdes. Tu fazuri xasiaTi ar aRiniSneba, nakadi uwyvetad miCneva, rac venuri gamotanis obstruqciaze miuTitebs.

*feradi dupl eqsuri ul trasonografia* - feradi dupl eqsuri ul trasonografiis teqnika dupl eqsuri ul trasonografiis identuria. gamosaxul ebis misaRebad pul suri dopl erul i signal i gamoiyeneba. gadamcemisaken da gadamcemidan mimarTul i sisxl is nakadi Sesabamisad wiTel i da l urj i ferebiT aRiniSneba. sisxl is feradi nakadi Sav-TeTr gamosaxul ebas edeba, rac venaTa identifikacias aadvil ebs.

#### *seriul i ul trasonografia*

ul trabgeriT teqnika wvvis Rma venaTa Trombozs saTanadod ver adgens. radgan Trombozi proqsimal ur venebSi SeiZl eba gavrcel des, aseTi pacientebis gamosavl enad sxvadasxva strategია gamoiyeneba. erTerT diagnostikur strategias uaryofiT pasuxidan xuTi dRis Semdeg ul trasonografiis ganmeoreba warmoadgens.<sup>16</sup> am meTodis nakl i is aris, rom uaryofiT ul trabgeriT gamokvl evis mqone pacientebi kl inikas kvl av unda ewvion.

## **ul trasonografiis kombinacia Rrma venaTa Trombozis pre-testur al baTobasTan an D-dimerul sinj ebTan**

zogierT centrSi fexis proqsimal uri venebis kompresiul i ul trabgeriT gamokvl eva kl inikur model Tan erTad xorciel deba. arsebobs mosazreba, rom dabal i kl inikuri al baTobisa da normal uri ul trabgeriT gamokvl evis mqone pacientebi usafRTxod SeiZl eba gavweroT seriul i ul trasonografiis gareSe.<sup>4</sup> kidev erT strategias ul trasonografiisa da D-dimerul i sinj is kombinacia warmoadgens. naCvenebi iqna, rom normal uri sawyisi ul trabgeriT gamokvl evisa da D-dimeris normal uri koncentraciis mqone pacientebi ganmeorebiT ul trasonografias ar saWi roeben.<sup>17</sup>

## **spiral uri kompiuterul i tomografiul i venografia da birTvul -magnituri rezonansi**

fexis spiral uri kompiuterul i tomografiul i venografia fexis SeSupebis mqone pacientTa Soris Rrma venaTa Trombozisa da rbil i qsovil ebis sxva davadebaTa diagnozis imedismomcem saSual ebas warmoadgens.<sup>18</sup> 53 pacientze Catarebul ma mcire kvl evam, romel Sic Rrma venaTa Trombozis gamosavl enad birTvul -magnituri rezonansi iqna gamoyenebul i, daadastura am teqnikiis upiratesoba Tanamedrove arainvaziur meTodebTan SedarebiT wvivi Rrma venaTa Trombozis diagnozis dros. miuxedavad amisa, gaiafebamde misi farTo danergva mosal odnel i ar aris.<sup>19</sup>

## **Rrma venaTa Trombozis mkurnal oba**

Rrma venaTa Trombozis standartul i sawyisi mkurnal oba tradiciul ad hospital izaciasa da intravenul i arafraqcionirebul i heparinis uwyvet gadasxmas gul isxmabda. mkurnal oba oral uri antikoagul antebis (K vitaminis antagonistebis) xangrZl ivi gamoyenebiT grZel deboda. dabal i mol ekul uri wonis heparinebis SemoRebam es praqtika Secval a. hemostazisa da Trombozis samuSao j gufis rekomendaciit, heparinis micema sul cota oTx dRes mainc unda gagrZel des da manam ar unda Sewydes, sanam INR zedized or dRes Terapiul fargl ebSi ar iqneba.<sup>20</sup> am rekomendaciis Tanaxmad, proqsimal uri venuri Trombozis pirvel i epizodis mqone patienti eqvSTvian antikoagul acias saWi roebs (samizne INR 2.5). antikoagul aciis xangrZl ioba kamaTis sagans warmoadgens.

## **heparinebi**

arafraqcionirebul i heparini pol isaqaridul i j aWvebis heterogenul i narevia. dabal i mol ekul uri wonis heparinebi arafraqcionirebul i heparinis depol imerizaciit miRebul fragmentebis warmoadgenen.<sup>21</sup> dabal i mol ekul uri wonis heparins arafraqcionirebul heparinTan SedarebiT ufro myari da stabil uri antikoagul aciuri moqmedeba gaaCnia da ufro xangrZl ivi naxevarsicocxl iT xasiaTdeba. am Tvissebebis gamo igi dReSi erTxel kanqveS Segvyavs da aqtivirebul i parcial uri Trombopl astinis drois kontrol ic aRar gvesaWi roeba.

dabal i mol ekul uri wonis heparini ganmeorebiTi venuri Tromboembol izmis prevenciisaTvis sul cota iseve efeqturia, rogorc arafraqcionirebul i heparini da statistikurad sarwmunod amcirebs mniSvnel ovan hemorragias mkurnal obis dawyebisas da saerto sikvdil obas mkurnal obis bol os.<sup>22</sup> dabal i mol ekul uri wonis heparini zogj er xangrZl ivad gamoiyeneba oral uri antikoagul antebis nacvl ad, am ukanasknel Ta ukuCvenebis dros (mag. orsul i qal ebi).

did britaneTSi orsul obis dros Cveul ebriv dabal i mol ekul uri wonis heparinis xmaroben, mSobiarobidan 6-12 kviris manZil ze ki dabal i mol ekul uri wonis heparins an

varfarins iyeneben. zogierT centrSi j erj erobiT i sev arafracioni rebul i heparini ini Sneba.

### **Trombol izuri saSual ebebi**

mwiri monacemebi Tu arsebobs imis Taobaze, rom Trombol izuri saSual ebebi (mag. streptokinaza) ufro swrafad xsnian simptomebs da inarCuneben venuri sarqvel ebis mTI ianobas, riTac amcireben post-fl ebitur sindroms.<sup>23</sup> amave dros, sixxl denis riski samj er ufro didia, ris gamoc Rrma venaTa Trombozis dros Trombol itikebs iSviaTadRa mi marTaven.

### **qvemo Rru venis fil tri**

qvemo Rru venis fil tri fil tvis embol izmis Tavidan asacil ebl ad gamoiyeneba. misi Cveneba moicavs:

- fil tvis embol izms antikoagul aciis ukuCvenebs dros, da
- ganmeorebiT fil tvis embol izms miuxedavad adeqvaturi antikoagul aciisa.

did britaneTSi qvemo Rru venis fil trs Cveul ebriv droebiT iyeneben da embol izaciis maRal i riskis periodidan sami kviris Semdeg amoiReben xol me. kvl av gaurkvevel i rCeba, fil tris xangrZI iv xmarebasTan erTad pacienti xangrZI iv antikoagul acias saWi roebs Tu ara.

### **el astiuri kompresul i windebi**

Rrma venaTa Trombozis mqone pacientebi post-Trombozul i sindromis Semcirebis mi zniT kompresul windebs unda iyenebdnen. Rrma venaTa proqsimal uri Trombozis mqone 194 pacientis gamokvl evam aCvena, rom safexureobrivi kompresisaTvis gankuTvnil i windebi post-Trombozul i sindromis sixSires 50%-iT amcireben.<sup>24</sup>

### **Rrma venaTa Trombozis ambul atoriul i mkurnal oba**

dabal i mol ekul uri wonis heparinebis SemoRebam SesaZI ebel i gaxada Rrma venaTa Trombozis ambul atoriul i mkurnal oba aqtivirebul i parcial uri Trombopl astinis drois meTval yureobis gareSe. Rrma venaTa Trombozis mkurnal obis sawyisi fazis ambul atoriul i da hospital uri reJimi mraVal ma kvl evam Seadara. kvl evaTa umetesoba kontrol irebul i ar iyo, magram gamoavl ina Sin mkurnal obis xarj -efeqturoba da garTul ebaTa prevenciis hospital uri mkurnal obis Sesadari unari.<sup>25</sup>

qvemo kiduris Rrma venaTa saelWvo Trombozis mqone pacientTa skriningisa da diagnozis meTodi ufro metad adgil obriv praqtikas efuZneba. gamomwvevi mizezis an midrekil ebis dasadgenad am pacientebis rocorc wesi Semdgomi gamokvl eva utardebaT. 45 wl is zemoT Rrma venaTa Trombozis ZiriTad mizezs simsiVne an umoZraoba warmoadgens, am asakis qvemoT ki yvel aze didi mniSvel oba Trombofil ias eniWeba.

**mimdinare kvl eva**

### **fondaparinaqsi**

fondaparinaqs natriumi warmoadgens sinTezur pentasaqarids, romel c gaaqtivebul faqtor X-s Trgunavs. igi axl axans dainerga venuri Tromboembol izmis profil aqtikisaTvis fexis didi orTopediul i operaciebis dros. fondaparinaqsis potencial i Rrma venaTa Trombozis samkurnal od Seswavl is sagans warmoadgens.

## antikoagul aciis xangrZI ioba

britaneTis Torakal uri sazogadoeba gegmavs did mul ticentrul kvl evas, romel ic Rrma venaTa Trombozsis pirvel i epizodis samTviiani da eqvsTviiani antikoagul aciis gamosaval s Seadar ebs.

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#### cxril i 1: qvemo kiduris tkivil is an SeSupebis SesaZI o mizezebi

##### venuri

- Rma venaTa Trombozi
- zedapirul i Trombofl ebiti
- post-Trombozul i sindromi
- gronikul i venuri ukmarisoba
- venuri obstruqcia

##### sxva

- cel ul iti
- beikeris kista
- motexil oba
- hematoma
- mwvave arteriul i iSemia
- I imfedema

- hipoproteinemia (mag. cirozi, nefrozul i sindromi)

## cxrili 2: gamokvlebebi Rrma venaTa Trombozis skringisaTvis

### D-dimeruli testebi

- Laboratoriuli
  - enzimTan dakavSirebuli imunosorbentuli analizi (ELISA)
  - lateqsis aglutinacia
- pacientis sawolTan
  - SimpliRED (aglutinaciis sinji)
  - Simplify (imunogromatografiuli sinji)

### pl etizmografia

- cifruli fotopletizmografia
- tenziometruli pletizmografia
- impedansuri pletizmografia

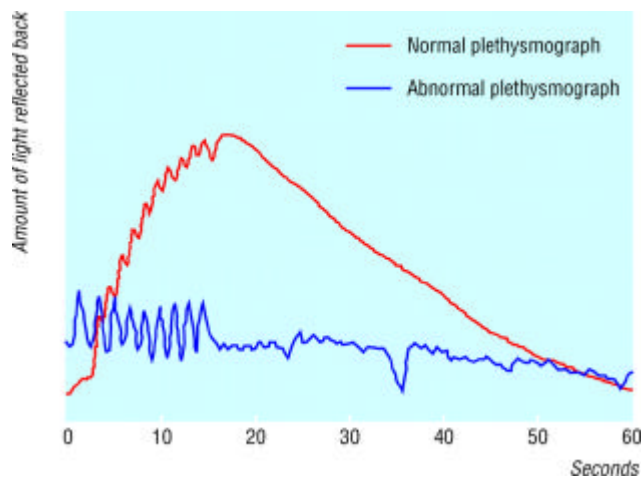
## cxrili 3: Rrma venaTa Trombozis zusti diagnozi

- venografia
- ultrasonografia
  - kompresiuuli ultrasonografia
  - dupleqsuri ultrasonografia
  - feradi dopleruli ultrasonografia
- kompiuteruli tomografia
- birTvil-magnituri rezonansi

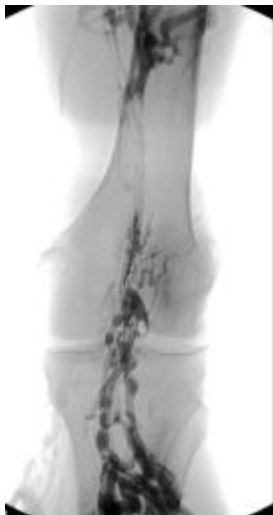


naxati 1. cifruli fotopletizmoграфиის გამოყენება Rrma venaTa Trombozis skringის მიზნით





naxati 2. cifrul i fotopl etizmografiis normal uri mrudi da Rrma venaTa Trombozis maCvnebel i aranormal uri mrudi



naxati 3. muxl qeSa Rrma venis Trombozis venograma

### Diagnosis, Investigation, and Management of Deep Vein Thrombosis

Clive Tovey, Suzanne Wyatt  
 BMJ 2003;326:1180-4

Deep vein thrombosis is an important cause of morbidity and mortality worldwide, and its clinical diagnosis is unreliable. This article explains current screening and diagnostic methods as well as treatment. Screening investigations include D-dimer tests and plethysmographic techniques. Definitive diagnosis is usually by venography or ultrasonography. Initial treatment is with heparin—unfractionated or low molecular weight—followed by oral anticoagulation. Outpatient treatment of deep vein thrombosis is safe.

# periferiul i arteriebis daavadebis mkurnal oba pirvel ad praqtikaSi

pol bernsi, stiven gafi, endriu bredberi  
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*Targma k. papoSvil ma*

didi britaneTis 65-75 wl is mosaxl eTagan yovel mexuTes kl inikuri gamokvl eviT periferiul i arteriebis daavadeba aqvs, Tumca simptomebi maTgan mxol od meoTxeds aReniSneba.<sup>1</sup> yvel aze gavrcel ebul symptoms warmoadgens xangamoSvebiTi koWl oba – qvemo kiduris kunTovani tkivil i datvirTvis dros. invaziur procedurebs (angiopl astika, stentireba, operacia) periferiul i arteriebis daavadebis mkurnal obaSi Tavisi adgil i gaaCnia. amave dros, msgavsad koronarul i arteriebis daavadebisa, periferiul i arteriebis daavadebiT gamowveul i avadoba da sikvdil oba SeiZl eba arsebiTad SemcirdeS da intervenciis Sedegebi SeiZl eba mniSvnel ovnad gaumj obesdes, Tu SemoviRebT e. w. `saukeTeso medikamentur mkurnal obas-, roml is didi nawil ic pirvel ad praqtikaSi SegviZl ia davnergoT.

## **diagnozi da Sefaseba**

xangamoSvebiTi koWl obis diagnozi Cveul ebriv anamnezis safuZvel ze SeiZl eba daisvas – koWl obis edinburgul kiTxvars am mdgomareobis mimarT maRal i specifiuroba (91%) da mgrZnobel oba (99%) gaaCnia.<sup>2</sup> diferenciul i diagnozi rogorc venur, ise neirogenul koWl obas moicavs (cxril i #1). gamokvl eviT vl indeba susti an arasebul i pul sacia, Semdgom gamokvl evas (dupl eqsuri ul trasonografia, angiografia) ki mxol od maSin mimarTaven, Tu invaziuri Carevis sakiTxi wydeba (naxati 1).

## **saukeTeso medikamenturi mkurnal obis arsi**

gavrcel ebul i mosazrebis sawinaaRmdegod, koWl obis kiduris kritikul iSemiaSi gadazrdisa da amputaciis saWiroebis riski dabal ia (<1% wl iurad). amave dros, sikvdil is riski, ZiriTadad - koronarul i da cerebrovaskul uri movl enebis gamo, maRal ia (5-10% wl iurad), rac koWl obis armqone imave asakisa da sqesis popul aciis risks 3-4-j er aRemateba. sawyisi mkurnal oba moicavs vaskul uri riskis faqtorebis modifikaciasa da saukeTeso medikamenturi mkurnal obis dawyebas, raTa gavzardoT sicocxl is xangrZl ioba, kidev ufro SevamciroT kiduris kritikul i iSemiis riski da gavaumj obesot pacientis funqciuri statusi. endovaskul uri an qirurgiul i Carevis sakiTxi mxol od saukeTeso medikamenturi mkurnal obis dawyebisa da misi efeqtis gamovl enisatvis saWiro drois gasvl is Semdeg ganixil eba, radgan saukeTeso medikamenturi mkurnal oba pacientTa umetesobis simptomebs imdenad aumj obesebs, rom invaziuri Careva saWiro aRar xdeba.<sup>3</sup> saukeTeso medikamentur mkurnal obas sargebel i im pacientebisaTvisac moaqvs, visac invaziuri Careva SeiZl eba dasWirdeS, radgan saukeTeso medikamenturi mkurnal obis dacva Carevis usafrTxoebas, uSual o warmatebasa da Soreul Sedegs mniSvnel ovnad aumj obesebs.<sup>4,5</sup>

## **saukeTeso medikamenturi mkurnal obis komponentebi**

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cxril i #2 gviCvenebs saukeTeso medikamenturi mkurnal obis komponentebs da maT zemoqmedebas periferiul i sisxl ZarRvebis daavadebaze, sisxl ZarRvovan garTul ebebsa da sikvdil obaze.

### mowevis Sewyveta

mowevis srul i da samudamo Sewyveta xangamoSvebiTi koWl obis mqone pacientTa gamosavl is ganmsazRvrel cal ke aRebul yvel aze mniSvnel ovan faqtors warmoadgens. samwuxarod, anal iziT dgindeba, rom eqimis ubral o sityvieri an weril obiTi rCevidan ori wl is Semdeg mowevas Tavi pacientTa mxol od 13%-ma daaneba.<sup>6</sup> randomizebul ma gakontrol ebul ma kvl ebebma aCvena, rom nikotinis Canacvl ebiTi mkurnal oba am maCvnebel s aormagebs. bupropionis gamoyenebas aseTive Sedegi moaqvs. Sesabamisad, koWl obis mqone yvel a patients nikotinis Canacvl ebiTi mkurnal oba Tavidanve unda SevTavazoT. nikotinis Camanacvl ebel i yvel a preparati (safeni, saReWi rezini, sprej) erTnairi ar aris, amitom erTi preparatis warumatebl obis dros sxva tipis preparatebi an maTi kombinacia unda gamoviyenoT. kokreinis j gufis monacemebiT, mowevis sawinaaRmdego kursebi efeqturi arian, gansxvavebiT sxva al ternatiul i mkurnal obisagan (hipnoTerapia, akupunqtura da sxva).<sup>7-9</sup>

### antiTrombocitul i saSual ebebi

antiTrombocitul i saSual ebebis mkvl evarTa j gufma aCvena, rom antiTrombocitul i saSual ebebis (Cveul ebriv, aspirini) daniSvna aTeroskl erozul i daavadebis ama Tu im gamovl enis mqone pacientTa Soris sisxl ZarRvovani sikvdil is risks daaxl oebiT 25%-iT amcirebs da erTnairad efeqturia koronarul i arteriebis daavadebisa da periferiul i arteriebis daavadebis dros.<sup>10</sup> arapirdapiri monacemebiT, zogierTi antiTrombocitul i saSual eba koWl obis mqone pacientTa mier gavil il manZil sac zrdis. periferiul i arteriebis daavadebis dros kl opidogrel i sul cota iseve, da SesaZl oa ufro metadac ki, efeqturia, vidre aspirini, usafrTxoebis mxriv ki mas aRemateba ki dec. sizviris gamo kl opidogrel s Cveul ebriv uniSnaven periferiul i arteriebis daavadebis mqone pacientTa mcire nawil s, vinc aspirins ver itans an visac aspirini saTanadod ver icavs. monacemebi periferiul i arteriebis daavadebis dros aspirinisa da kl opidogrel is kombini rebis Taobaze ar arsebobs, Tumca kvl eva am mimarTul ebiT ukve mimdinareobs.

### Sagriani diabetes mkurnal oba

periferiul i arteriebis daavadebis dros meore tipis diabetes gamovl ena an gamoricxva metad mniSvnel ovan (cxril i 3), Tumca es sworxazovnad ar unda xdebodes.<sup>11</sup> britanul i rekomendaciebis Tanaxmad, gl ukozis >7.0 mmol /l momatebas diabetes simptomebi unda axl des, rac usimptomo pacientTa did nawil s (20-30%) gamoricxavs. gl ukozis oral uri tol erantobis sinj i `oqros standarts- warmoadgens, magram moxerxebul i ar aris. ufro mosaxerxebel ia sisxl Si gl ukozis SemTxveviTi gansazRvra, oRond anal izi akreditirebul i laboratoriaSi da ara TiTidan aRebul i kapil arul i sisxl iT unda gakeTdes. Tu gl ukoza 11.1 mmol /l -s aRemateba, es meore tipis diabetes maCvnebel s warmoadgens, xol o Tu 7.0-11.1 mmol /l -s Seadgens, gl ukozis oral uri tol erantobis sinj i xdeba saWiro.

### hipertenzia

hipertenziis mkurnal obis sargebel i insul tisa da koronarul i movl enebis Semci rebis Tval sazrisiT kargad aris dadgenil i. sami zne maCvnebel s warmoadgens <140/85 mm vvy. aradiabetiani pacientebisaTvis da <140/80 mm vvy. meore tipis diabetes mqone pacientebisaTvis. wnevis daqvei Tebam Tavdapirvel ad xangamoSvebiTi koWl oba SeiZl eba

daamZimos. es yvel a antihipertenziul medikaments exeba da safuZvel i ara gvaqvs vifigroT, rom beta-bl okerebi gansakuTrebul i riskiT xasiaTdebian.<sup>12</sup> HOPE kvl evis monacemebiT, age-inhibitori ramipril i periferiul i arteriebis daavadebis mqone pacientTa avadobasa da sikvdil obas daaxl oebiT 25%-iT amcirebs. aucil ebel i ar iyo, rom kvl evaSi monawil e pacientebis hipertenzia hqonodaT, ami tom riskis zemoaRniSnul i Semcireba arteriul i wnevis SedarebiT mcire daqveiTebiT ver aixsneba. HOPE kvl evis Tanaxmad, age inhibitori periferiul i arteriebis daavadebis mqone pacientTa umetesobas argebs, Tuki Tavidan avicil ebT Tirkml is funqciis gauaresebas Tirkml is arteriaTa farul i stenozis gamo.

### varj iSi

kokreinis bol odroindel ma mimoxil vam gvaCvena, rom fizikur varj iSs SeuZl ia mniSvnel ovnad gazardos koWl obis mqone pacientTa mier gavl il i manZil i (150%). am efeqtis zusti meqanizmi j er gansazRvrul i ar aris, magram ramdenime faqtori gamovl enil i iqna. saukeTeso medikamenturi mkurnal obis, saukeTeso medikamenturi mkurnal obisa + varj iSis, saukeTeso medikamenturi mkurnal obisa + angiopl astikis kl inikuri efeqturoba da xarj -efeqturoba amJamad mimdinare kvl evebis sagans warmoadgens.

### qol esterinis daqveiTeba

HPS kvl evis monacemebiT, statinis meSveobiT saerTo qol esterinis da dabal i simkvrivis l ipoproteinTa qol esterinis 25%-iani daqveiTeba periferiul i arteriebis daavadebis mqone pacientTa kardiovaskul ur avadobasa da sikvdil obas daaxl oebiT meoTxediT amcirebs, miuxedavad asakisa, sqesisa da qol esterinis sawyisi koncentraciisa. Sesabamisad, periferiul i arteriebis daavadebis mqone yvel a pacientma statini unda miRos. l lipiduri profil i mkurnal obis dawyebamde da dawyebidan eqvsi kviris Semdeg unda ganisazRvros, raTa qol esterinis 25%-ian daqveiTebaSi davrwundeT da gamovavl inoT qol esterinis an trigl iceridebis Zal ian maRal i donis mqone pacientebi, visac special izebul i mkurnal oba dasWirdeba.

### damxmare mkurnal oba

cil ostazol ma ramdenime did orgzis brma pl aceboTi gakontrol ebul randomizebul kvl evaSi sarwmunod gazarda koWl obis mqone pacientTa mier gavl il i manZil i (35-109%-iT). cil ostazol is zusti rol i j er dadgenil i ar aris, Tumca gamarTI ebul i iqneba misi mosinj va im pacientebSi, visac saukeTeso medikamenturi mkurnal obis 3-6 Tvis Semdeg kvl av gamoxatul i simptomebi aReniSnebaT. sxva waml ebis an vitaminebis Sesaxeb sarwmuno monacemebi ar mogvepoveba.<sup>13</sup> dasasrul s uaxl ovdeba kvl evebi, roml ebic swavl oben fol iumis mJavisa da vitamin B<sub>12</sub>-is efeqts hiperhomocisteinemiaze, rogorc vaskul uri riskis savarauo faqtorze.

### **rodis unda gaigzavnos pacienti sisxl ZarRvTa qirurgTan?**

adgil obrivi garemoebebi mniSvnel ovani TaviseburebiT xasiaTdebian, magram sisxl ZarRvTa qirurgTan gagzavna gamarTI ebul i iqneba, Tu

- pirvel adi praqtikis gundi darwmunebul i ar aris diagnozSi, saukeTeso medikamenturi mkurnal obis dawyebisa da meTval yureobisaTvis ar gaaCnia sakmarisi resursebi, an eWvi aqvs rom simptomebs gaurkvevel i mizezi ganapirobebs.
- miuxedavad saukeTeso medikamenturi mkurnal obis dawyebisa da dacvisa, patients kvl av gamoxatul i simptomebi aReniSneba.
- patients susti an ararsebul i femoral uri pul sacia aqvs (ix. qvemoT).

pacienti dauyovnebl iv unda gaigzavnos uaxl oes qirurgiul kl inikaSi, Tu mas aReni Sneba kiduris kritikul i iSemia (tkivil i mosvenebis dros, gangrena an dawyl ul eba), abdominal uri gamokvl eva mucl is aortis anevrizmas gvafiqrebinebs, an anamnezSi gardamaval i iSemiuri Seteva anda gardamaval i sibrmave vl indeba.

### vaskul uri da endovaskul uri qirurgia

xangamoSvebiTi koWl obis dros angiopl astikis an stentirebis mxardamWeri sarwmuno monacemebi ar arsebobs.<sup>14</sup> orma randomizebul ma gakontrol ebul ma kvl evam aCvena, rom warmatebul i angiopl astika xanmokl e vadaSi (6 Tve) zrdis gavl il manZil s, magram saukeTeso medikamenturi mkurnal obis xangrZl ivi gamosaval i (2 wel i) gavl il i manZil isa da sicocxl is xarisxis Tval sazrisiT angiopl astikas aRemateba.<sup>4</sup> rogorc ukve aRvniSneT, varj iSisa da angiopl astikis Sedareba amJamad mimdinareobs.<sup>5</sup> did britaneTSi xangamoSvebiTi koWl obis dros Suntireba iSviaTad xorciel deba, radgan

- iTvl eba, rom operaciis riski aRemateba sargebel s im pacientebisaTvis, visi mdgomareobac saukeTeso medikamenturi mkurnal obiT umj obesdeba.
- Tumca simptomebi xSirad cal mxrivia, koWl obis mqone pacientTa umetesobas ormrxrivi daavadeba aReniSneba; erTi fexis revaskul arizacia xSirad meore fexis manamde usimptomo daavadebas amJRavnebs.

Cveul ebriv angiopl astikis, stentirebisa da operaciis zRurbl i ufro dabal ia upiratesad aorta-TeZos arteriis (sazardul is iogis zemoT) daavadebis mqone pacientTa Soris, radgan

- saukeTeso medikamenturi mkurnal oba am pacientTa mier gavl il manZil s umniSvnel od zrdis, Tumca sicocxl isa da kiduris SenarCunebis mxriv savsebiT efeqturia. amis mizezs aorta-TeZos arteriis Seviwroebis irgvl iv kol ateral uri cirkul aciis warmoqmnis sirtul e warmoadgens.
- aortis an TeZos arteriis angiopl astika da stentireba ufro gamZl ea saazardul is iogis qvemoT mdebare arteriebTan SedarebiT, savaraudod didi kal ibrisa da sisxl is mZl avri nakadis gamo.
- aorta-TeZos arteriis rekonstruqcia erTdroul ad orive fexs moicavs.

ararsebul i an Sesustebul i femoral uri pul saciis mqone pacientTa qirurgiul i mkurnal oba saukeTeso medikamenturi mkurnal obis mniSvnel obas ar gamoricxavs. ufro metic, aorta-TeZos arteriis rekonstruqcia ar iZl eva kl inikurad mniSvnel ovan gaumj obesebas im pacientTa Soris, visac amave dros saazardul is iogis qvemoT mdebare sisxl ZarRvebis mZime daavadeba aReniSneba.<sup>14,21,22</sup>

### **mimdinare kvl eva**

periferiul i arteriebis daavadebis saukeTeso medikamenturi mkurnal obis kl inikuri efeqturoba da xarj -efeqturoba bevrma didma kvl evam daadastura, bevrac amJamad mimdinareobs. koWl obis dros varj iSisa da angiopl astikis SedarebiTi kvl eva damxmare mkurnal obis (angiopl astika da meTval yureobis qveS mimdinare varj iSi) rol s swavl obs. periferiul i arteriebis daavadebis mqone pacientTa mkurnal obis ZiriTad probl emas arsebul i codnis gamoyeneba warmoadgens. pirvel adi praqtikis gunds SeuZl ia am maRal efeqturi da dasabuTebul i mkurnal oba ganxorciel eba, Tu Camoayal ibebs zogad, saeqTno, mkurnal obis oqmze dafuznebul sisxl ZarRvovan kl inikebs, sadac zogadi praqtikis eqimebs SeeZl ebaT miavl inon yvel a “vaskul uri” pacienti, visac saukeTeso medikamenturi mkurnal oba esaWiroeba. am kl inikebs unda meTval yureobden dainteresebul i zogadi praqtikis eqimebi da an sisxl ZarRVTa medicinisa da qirurgiis special istebi, Tavad kl inikebs ki unda gaaCndeT pacientTa Semdgomi gamokvl evisa da meorad rgol Si gagzavnis naTel i da sayovel Taod miRebul i pol itika. aseT kl inikebs SesaZl oa xanmokl e droiT damatebiTi dafinanseba dasWirdeT, magram saSual o da xangrZl iv perspeqtivaSi xarj -neitral uri an sul ac efeqturi unda iyvnen, radgan Tavidan

agvacil eben iseT ZviradRirebul sisxl ZarRvovan movl enebS, rogoric aris insul ti da amputacia.

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naxati 1. angiograma, romel ic gviCvenebs barZayis arteriis ormxriv okl uzias xangamoSvebiTi koWl obis mqone patientSi

cxril i 1. xangamoSvebiTi koWl obis diferenciul i diagnozi

maxasiaTebel i	xangamoSvebiTi koWl oba	venuri koWl oba	nervul i tkivil i
tkivil is xasiaTi	spazmuri	"mfeTqavi"	denis dartyms msgavsi
dawyeba	TandaTanobiTi, mdgradi	TandaTanobiTi, SeiZl eba iyos uecari	SeiZl eba iyos uecari, aramdgradi
ixsneba	gaCerebiT	fexis aweviT	daj domiT, win gadaxriT
mdebareoba	kunTTa j gufi (dundul o, barZayi, wvivi)	mTel i fexi	cudad l okal izebul i, SeiZl eba moicvas mTel i fexi
dazianebul i fexi	Cveul ebriv erTi	Cveul ebriv erTi	xSirad orive

cxrili 2. periferiuli arteriebis daavadebis sauketeso medikamenturi mkurnal obis komponentebi

komponenti	rekomendacia	zemoqmedeba sikvdil obasa da vaskul ur movl enebze	zemoqmedeba periferiuli arteriebis daavadebaze
mowevs Sewyveta	ganmeorebiti rceva. nikotinis Camanacvlebeli Terapian bupropioni. qcevit Terapi (mowevs sawinaarmdego kursebi)	mowevs Sewyveta sikvdil obas 10 wli smanzilze 54%-dan 18%-mde amcirebs	mosvenebiti tkivili 7 wli Semdeg 0%, mwevel Ta 16%-Tan Sedarebit
qol esterinis Semcireba	yvela pacientma unda miros statini, raTa qol esterini 25%-iT Sevamcirot. Tu msl qol esterini dabalia, an triglyceridebi maralia, damatebiti mkurnal oba Seizleba dagvirides (lipidurkl inikasi gagzavna)	RR=0.81 (0.72-0.87) didi vaskuluri movl enisatvis (miokardiumis infarqti, insul tian revaskularizacia)	kl inikuri sargebeli dadgenili ar aris
antitrombocituli saSualeba	aspirini 75 mg dResi. kl opidogrel 75 mg dResi, Tu aspirins veritans	vaskuluri movl enebis Semcireba 22%-iT	gavlili smanzilis Sesazlo gazrda
Saqriani diabetes mkurnal oba	meore tipis diabetes skriningi	intensiuri kontrol i insulinis an sul fonil Sardovanas meSveobiti iwevs RR=0.94 (0.8-1.1) saerto sikvdil obisatvis. intensiuri kontrol i metforminis meSveobiti Warbi wonis mqone pacientebSi iwevs RR=0.64 (0.45-0.91) saerto sikvdil obisatvis	RR=0.51 (0.01-19.64) qvemo kiduris amputaciis riskisatvis
arteriuli wneva	Sevamcirot 140/85 mm vwy qvemoT	RR=0.87 (0.81-0.94) saerto sikvdil obisatvis	ucnobia
age inhibitorebi	Seizleba davunisnot yvela patients, Tundac is normotenziuli iyos	RR=0.73 (0.61-0.86) miokardiumis infarqtis, insul tian kardiovaskuluri sikvdil obisatvis	ucnobia



		[diabetis mqone pacientebSi RR=0.75 (0.64-0.88)]	
varj iSi	pacintebS unda mivceT weril obiTi rCeva varj iSis Sesaxeb da, Tu SesaZl ebel ia, CavrToT meTval yureobis qveS mimdinare programaSi efeqturi danamati im pacientebisaTvis, visac saukeTeso mkurnal obis dacvis Semdeg kvl av gamoxatul i simptomebi aReni Sneba	kardiovaskul uri sikvdil obis Semcireba 24%-iT (pirvel adi da meoradi prevencia)	gavl il i manZil is gazrda 150%-iT
cil ostazol i		ucnobia	gavl il i manZil is mniSvnel ovani gazrda

msl qol esterini = maRal i simkvrivis I ipoproteinTa qol esterini, RR = fardobiTi riski (sarwmunoebis 95%-iani interval i)

cxril i 3. Saqriani diabetis skriningi xangamoSvebiTi koWl obis dros

- xangamoSvebiTi koWl obis mqone pacientTa 20%-s diabeti aReni Sneba; eqimTan pirvel i vizitis dros SemTxvevaTa 50% SeiZl eba daudgenel i iyos.
- UKPDS kvl evam aCvena, rom intensiuri gl ikemiuri kontrol i amcirebs meore tipis diabetis mikrovaskul ur gartul ebebs, metforminis gamoyeneba ki amcirebs makrovaskul ur gartul ebebs diabetisa da Warbi wonis mqone pacientTa Soris
- kvl evaTa umetesoba gviCvenebs, rom diabeti kiduris kritikul i iSemiis ganvitarabis mZl avr riskis faqtors warmoadgens<sup>16</sup>
- diabetis mqone pacientebi arteriul i wnevisa da, SesaZl oa, I ipidebis koncentraciis ufro mkacr kontrol s saWi roeben<sup>17,18</sup>
- diabetis mqone pacientebS wivze wnevis mkveTri momateba ufro xSirad aReni SnebaT<sup>19</sup>
- diabetis mqone pacientebisaTvis qirurgiul Carevas nakl ebi sargebel i moaqvs, Tumca gul sisxl ZarRvTa daavadebebis medikamenturi mkurnal obisagan isini met sargebel s naxul oben, vidre diabetis armqone pirebi<sup>20</sup>
- diabetis mqone bevr patients aReni Sneba neiropaTia, romel ic, arteriul ukmarisobasTan erTad, maT qsovil is neiroiSemiuri dakargvis gazrdil i saSiSroebis winaSe ayenebs

**Management of Peripheral Arterial Disease in Primary Care**  
Paul Burns, Stephen Gough, Andrew W Bradbury

Diagnosis of peripheral arterial disease is based mainly on the history, with examination and ankle brachial pressure index being used to confirm and localise the disease. Peripheral arterial disease is a marker for systemic atherosclerosis; the risk to the limb in claudication is low, but the risk to life is high. Patients with intermittent claudication should initially be treated with "best medical treatment"; some patients may be candidates for percutaneous angioplasty, but this treatment is not based on evidence. Patients should be referred to a vascular surgeon if there is doubt about the diagnosis or evidence of aortoiliac disease or if the patient has not responded to best medical treatment or has severe disease.

## mi Rwevebi hematol ogi aSi

moamzada Sorena arCuaZem

hematol ogi a mraVal dargovani special obaa, romel ic bavSvTa da mozardTa avTvisedian simsiVnur da ara-simsiVnur daavadebaTa kl iniko-laboratoriul aspeqtebs moicavs. mimoxil vaSi mogiT xroBT hematol ogiur daavadebaTa diagnostikasa da mkurnal obaSi miRweul i warmatebebis Sesaxeb. mol ekul ur-biol ogiur miRwevaTa ricxvi fenomenal uri siCqariT izrdeba (win uswrebs Terapiul i dargis ganviTarebas), rac xel misawvdoms xdis daavadebis gamovl enis maRal mgrZnobiare meTodebs da zogierTi daavadebis genuri Terapiis gziT gankurnebis perspeqtivas badebs.

### **meTodebi:**

gamoyenebul i informacia aRebul ia ukanasknel dros Catarebul i samecniero Sexvedrebis, britaneTisa da amerikis hematol ogiis sazogadoebebis CaTvl iT, hematol ogiuri Jurnal ebis wamyvani statiebisa da diskusiebis masal ebidan.

### **anemi ebi:**

rkinadeficitur anemiasa da qronikul daavadebeBTan asocierebul i anemiis diferencial uri diagnozi sakmaod xSir da imavdroul ad seriozul probl emas warmoadgens samedicino praqtikaSi. qronikul daavadebeBTan asocierebul i anemia rTul xasiaTs atarebs d mas ganapirobeben proanTebiTi citokinebi, eriTroPoetinis mimaRT Zvl is tvinis daqveitebul i pasuxi, eriTroCitebis sicocxl is xangrZl ivobis Semcireba, rkinis reutilizaciis darRveva. Cveul ebriv, gaurTul ebel i rkinadeficituri anemiis dros, hemogl obinis koncentraciis, eriTroCitebis saSual o mocul obis, Sratis feritinis da rkinis koncentraciebis Semcirebas Tan axl avs rkinis SemboWvel i saerto SesaZl ebl obis momateba. samwuxarod, kl inikuri SemTxvevebi uxSiresad atipiur xasiaTs atarebs da CamoTvl il i analizebis Sedegebi araerTgvarovani da urTierTsapirisprioc kia. ufro meti, Tu qronikul daavadebasTan asocierebul anemias Tan axl avs rkinis deficiti, am ukanasknel is diagnostikuri parametrebi Secvl il ia, rac arTul ebs diagnozis dadgenas. xSirad organizmSi rkinis maragis zustad Sefasebis erTaderT saSual ebas Zvl is tvinis punqtatis rkinaze SeRebva warmoadgens. es ki Zviri, xangrZl ivi da invaziuri meTodia. ukanasknel periodSi SemuSavebul iqna Sratis transferinis receptoris testi, romel ic SesaZl ebel s xdis am jgufis pacientebSi rkinis maragis zustad Sefasebas.

Sratis feriniti, 480kil odal toni zomis cil aa, romel ic organizmSi rkinis samarago avzs warmoadgens. zogadad Sratis feritinis koncentraciis daqveiteba rkinis rezervis amowurvaze mianiSnebs. Tumca, feritini "mwvave fazis" cil aa da misi koncentracia anTebiTi procesebis dros matul obs. magal iTad, aqtiuri revmatol ogiuri paTol ogiis mqone pacientebSi feritinis koncentracia SesaZl oa normal uri (an momatebul ic ki) iyos, maSin roca sinamdvil eSi pacienti rkinis deficits ganicdis. transferinis receptoris testi miznad isaxavs rkinis deficitiT da qronikul i daavadebebiT gamowveul i anemiebis diferenciebas.

raSi mdgomareobs transferinis receptoris testis arsi?

transferini aris pl azmis rkinis satransporto cil a. im uj redebis zedapirze, roml ebiC rkinis atomebs saWiroeben, transferinis receptorebis eqspresia matul obs. receptori ikavSirebs pl azmis transferins rkinis atomeBTan erTad. transferinisa da misi receptoris kompl eqsi CaiZireba uj redSi, tovebs iq rkinis atomebs da Semdeg kvl av uj redis zedapirs ubrundeba da iSl eba. gamoTavisuflebul i transferini ganagrZobs rkinis axal i atomebis transportirebas. rkinadeficituri anemiis dros uj redTa zedapirze transferinis receptorebis eqspresia matul obs maSin, roca qronikul i daavadebebiT gamowveul i anemiis dros maTi raodenoba ucvl el i (normal uri) rCeba.

transferinis receptorebis raodenobrivi Sefaseba sisxl is Sratis nimuSebis imunofermentul i analizis gziT xdeba, rac erTbaSad didi raodenobiT nimuSebis gamokvl evis Sesazl ebl obas izl eva. arsebul i informaciis Tanaxmad, aRniSnul i testi rkinis deficitis gamovl enis Tval sazrisiT iseve sando da dasayrdenia, rogorc Zvl is tvinis punqtatis gamokvl eva. revmatol ogiuri da sxva anTebiTi daavadebebis mqone pacientebisaTvis igi mzard mniSvnel obas izens.

### **hemofilia**

hemofilia ? (VIII faqtoris deficit) da B (IX faqtoris deficit, qristmasis daavadeba) X qromosomasTan SeWidul i daavadebebia, roml ebic mxol od mamakacebSi vl indeba da maTi sixSire Sesabamisad, 1:10 000 da 1:60 000 Seadgens. Sededebis aRniSnul i faqtorebis koncentraciaTa donis mixedviT ganasxvaveben daavadebis msubuq (>5%), saSual o (2-5%) da mZime (<2%) formebs. hemofil iis mkurnal obis umTavres da gadamwyvet komponents VIII da IX faqtoris sufta koncentrebiT Sesabamisi Sededebis faqtoris deficitis Sevseba warmoadgens. aRniSnul i mkurnal obis Catareba binis pirobebSicaa Sesazl ebel i. hemofil iis msubuqi formis mqone pacientebSi mkurnal oba mxol od saWiroebis SemTxvevaSi tardeba (sisxl denis dros) maSin, roca mZime hemofil iis dros mkurnal obas profil aqtikuri xasiaTi aqvs da pacientebi mas 1-2 wl is asakidan iReben (es mZime hemofil ias xel onurad gadaaqcevs daavadebis msubuq formad, rac arTropaTiis ganvitarebis Sesazl ebl obas mniSvnel onvad amcirebs). Tumca sufta Sededebis faqtorebi SedarebiT usafRTxoa sisxl iT gavr cel ebadi virusebiT (hepatiti, aiv) inficirebis Tval sazrisiT, dResdReobiT axal i variantis kreucfel d-j akobis daavadebis transmissiis riskis gansazRvra SeuZl ebel ia. garda amisa, inhibitoris ganvitareba aseve mniSvnel ovani gansj is sagans warmoadgens.

ukanasknel periodamde, ? da B hemofil iis samkurnal od gamoyenebul i Sededebis faqtorebis umetesoba miReboda adamianis pul irebul i pl azmidan Sededebis faqtorebis gamoyofisa da gasufTavebis gziT, rac aiv da ? hepatitis virusebis gavr cel ebis maRal al baTobas ukavSirdeba. VIII faqtoris sinTezuri koncentradi pirvel ad 80-ian wl ebSi, VIII da IX faqtorebis genuri struqtorebis dadgenis Semdeg Sei qmna. Tanamedrove xel misawvdomi rekombinantul i VIII faqtoris koncentradi Seicavs "Recombinate"-s (eqspresias adgil i aqvs Cinuri zRvis goWis kvercxuj redebis kul turaSi), "Kogenate"-s (eqspresia aRmoCenil ia axal Sobil i zRvis goWebis Tirkml is uj redebSi) da "Refracto"-s (II Taobis sinTezuri VIII faqtori, roml is gens akl ia Cinuri zRvis goWebis kvercxuj redebSi eqspresirebul i nawil i). 16 wel ze mcire asakis yvel a patients rekombinantul i VIII faqtoriT murnal oben.

aRniSnul i virusebiT pacientebis inficirebas mraval i faqtori ganapirobebs. uj redbi roml ebzec, rekombinantul i cil ebis eqspresia xdeba, Sesazl oa, Tavad Seicavdnen virusebs. garda amisa, uj redTa kul tivacia rTul garemoSi mimdinareobs, romel ic xbos (calf) Srats, xaris (bovine) Sratis al bumins da sxva ingredientebS Seicavs. es ukanasknel ni ki Sesazl oa, Tavad iyon inficirebul i. da bol os, mraval i koncentratistabil izacia xdeba adamianis al buminiT, romel ic aseve virusebis potenciur wyaros warmoadgens. me-3 Taobis produqtebs, roml ebic uaxl es momaval Si gaxdebian xel misawvdomi, adamianis an xaris cil ebi aRar daemateba.

### **Trombozis momatebul riskTan asocierebul i paTol ogiebi**

termini Trombofil ia aerTianebs sisxl is Sededebis memkvidrul an SeZenil paTol ogiebs, rac Trombozis riskis momatebas iwvevs. memkvidrul paTol ogiaTa ricxvi mniSvnel onvad gaizarda mas Semdeg, rac 1965 wel s antiTrombin III-s deficit i qna dadgenil i. ukanasknel xanebSi aRweril memkvidrul pol imorfizmebs miekuTvneba V faqtoris da proTrombinis genebis mutaciebi. udides interest iwvevs axal i aRmoCena, rom Trombofil ia ganmeorebiT mSobiarobis SewyvetasTan da pre-ekl amfsiasTan asocierdeba.

### **V faqtoris mutaciebi**

Trombozul i paTol ogiebis mraval i memkvidrul i paTogenezuri faqtoria aRweril i, Tumca mraval oj axur SemTxvevaSi daavadebis gamomwvevi mizezi jer kidev ucno bi rCeba. miuxedavad amisa, didi warmatebebia miRweul i - aRsaniSnavia V faqtoris da proTrombinis genebis mutaciebis aRmoCena. bertinam da Tanaavtorebma V (I eidenis) faqtoris mutacia pirvel ad aRweres dahl bekis da Tanaavt. dakvirvebis safuZvel ze, roml is Tanaxmadac Trombozebisadmi midrekil ebis mqone erTi oj axis wevrebis pl azmis nimuSebSi aqtivirebul i C cil is efeqti daqveiTebul i iyo. aqtivirebul i C cil a wamyvani antikoagul antia, romel ic Sededebis V da VIII faqtorebis fosfol ipidTan dakavSirebul i aqtivirebul i formebis gaxl eCisa da inaqtivaciis gziT swrafad aqveiTebS Trombinis warmoqmnas. inaqtivaciaSi 3 l okusi - Arg<sup>506</sup>, Arg<sup>306</sup>, Arg<sup>679</sup> monawil eobs. aqtivirebul i C cil isadmi rezistentoba, rac mwir antikoagul antur pasuxs ganapirobebs, evropis janmrTel i mosaxl ebis 5-10%-s aReniSneba, magram faqtiurad ar vl indeba iaponel an afrikul popul aciaSi. V (I eidenis) faqtori, romel ic pirvel ad iqna aRweril i I eidenis Trombofil iis kvlevis dros, warmoadgens V faqtoris variantul formas, romel Sic gl utaminiT Canacvl ebul ia Arg<sup>506</sup> da pasuxs agebs aqtivirebul i C cil isadmi rezistentobis SemTxvevaTa 90%-ze. bol o xanebSi gamovl enil ia V faqtoris axal i mutacia, roml is drosac aminomJavas Canacvl eba xdeba Arg<sup>306</sup> poziciaSi (V faqtori, kembriji). V faqtoris mutaciebTan asocierebul i venuri Trombozis SedarebiTi riski Seadgens 7-s heterozigotul da 80-s homozigotul SemTxvevebSi. aqtivirebul i C cil isadmi rezistentobis fenotipi heterogenul ia da masze mraval i genetikuri da garemo faqtori axdens gavlenas, rogorebicaa fexmZimoba, kontraceptivebis miReba da VIII faqtoris koncentraciis momateba.

### **proTrombinis genis mutaciebi**

proTrombini Trombinis winamorbedi faqtoria, romel ic gadamwyvet rol s asrul ebs hemostazsa da Trombozul i paTol ogiebis Camoyal ibebaSi. fuurTma da kol egebma mol ekul ur-biol ogiuri meTodebis (polimerazul i j aWvuri reaqcia, dnm-is sekvenirebasTan erTad) gamoyenebiT detal urad gamoikvl ies venuri Tromboembol izmis mqone avadmyofebis proTrombinis genis struqtura. am pacientebis 18%-s genis gadautanel i 3Tegionis 20210 nukl eotidSi G A cvl il ebas aqvs adgil i. aRniSnul i Zvrebi janmrTel i sakontrol o pirebis mxol od 1%-Sia gamovl enil i. farTo masStabiani kontrol irebul i kvlevis dros mkvl evarebma aRmoaCines, rom mutanturi al el is mqone pirebSi pl azmaSi proTrombinis koncentraciebis momatebasTan erTad venuri Tromboembol izmis sixSire 3-jer izrdeba. Tromboembol izmis gazrdil i riskis ganapirobebel i sxva genetikuri darRvevebi ganxil ul i iqneba qvemoT.

### **homocisteinemia da Trombozul i daavadebebi**

homocisteini warmoadgens aminomJavas, romel ic Seicavs gogirds. homocisteinis cikli moicavs fermentebS, roml ebic kofaqtorebis saxiT vitamin B<sub>12</sub>, fol iumis mJavas da piridoqsins saWiroeben. sisxl Si homocisteinis maRal i koncentracia rogorc venuri aseve arteriul i Trombozis damoukidebel risk-faqtors warmoadgens. homocisteinis metabol izmis darRvevebma SesaZl oa Tavi iCinon memkvidrul i da kvebiTi paTol ogiebis dros. kvebiTi deficitebis dros, vitamin B<sub>12</sub>, fol iumis mJavas mkveTri nakl eboba megal obl astur anemias iwvevs, msubuqi deficiti ki Trombozisadmi winaswarganwyobasTan asociardeba. memkvidrul ad ganpirobebul i maRal i homocisteinemia uSual od azianebs sisxl ZarRvovan sistemas. 1969 wl s makqul im pirvel ad ganaxada, rom homocisteinemia da hiperhomocisteinemia gamomwvevi metabol izmis memkvidrul i darRvevebis miXedviT homozigotur pacientebS naadrevi okl uziuri sisxl ZarRvovani daavadebebisadmi midrekil eba aqvT. pl azmis homocisteinis anal izi Trombofil iis skringis mzard proceduraTa ricxvSia Sesul i.

### **avTvisiani simsvnuri daavadebebi**

ukanasknel xanebSi hemobl astozebis (avTvisiani hematol ogiuri daavadebebi) dargSi ramodenime mniSvnel ovani aRmoCena gakeTda. mwvave da qronikul i l eikozis sakiTxebeze mimdinare kvl evebi, ZiriTadad, mkurnal obis protokol ebis daxvewa-gaumj obesebiskena mimarTul i. axal ma agentebma, purinebis anal ogebma (fl udarabini da 2-ql orodioqsiadenozini) daamtkices Taviani efeqturoba qronikul i limfoiduri simsvneebis - qronikul i limfoiduri l eikemiisa da bususovanuj redovani l eikemiis mkurnal obaSi. special istebi miiswrafian am medikamentebis peroral uri formebis Seqmnisaken, rac Sesazl ebel s gaxdis maTs gamoyenebas ambul atorul pirobebSi.

### **herpesis virusi da mravl obiTi miel oma**

rogorc ukve cnobilia, Zvl is tvinis mikrogaremo mravl obiTi miel omis paTogenezSi mniSvnel ovan rols asrul ebs da Zvl is tvinis arasimsvnur uj redebs simsvnuri uj redebis zrdisaTvis xel isSewyoba SeuZl iaT. uaxl esi kvl evebis Tanaxmad, adamiანის herpesis virusi, romelic, Cveul ebriv, kapoSi sarkomis mqone pacientebSi (amitom kapoSi sarkomasTan asocierebul i herpes-virusi ewodeba) vl indeba, aRmoCeni lia mravl obiTi miel omiT daavadebul i pacientebis dendritul uj redebSi (Tumca araa napovni Tavadi miel omur uj redebSi). igive herpesis virusi monokl onuri gamapaTiis mqone pacientebis 25%-Sia gamovl enili. monokl onuri gamapaTiis SemTxvevaTa mcire nawil i mravl obiT miel omad transformacias ganicdis. In situ hibridizaciis meTodi s wyal obiT herpesis virusi aRmoCeni lia mravl obiTi miel omis mqone 21 pacientidan 18-Si, gansxvavebiT sxva hematol ogiuri avadmyofebisa da janmrTel i pirebisagan. garda amisa, miel omuri dendritul i uj redebi awarmoeben virusul interl ekin6-is transkripcias, romlis adamiანის homologic miel omuri uj redebis zrdis faqtors warmoadgens. dResdReobiT ar arsebobs naTel i damamtkicebel i monacemebi imisa, rom kapoSi sarkomasTan asocierebul i herpesis virusi uSual o rols asrul ebs miel omis ganvitarebaSi, Tumca iribi mtkicebul ebebi mxars uWers am hipotezas. aRniSnul Temaze mimdinareobs kvl evebi.

### **momavali**

#### **specifiuri mutaciebis skringi**

mol ekul ur-biol ogiuri testebis umetesoba - magal iTad, samxreTis bl otingi, polimerazul i j aWvuri reaqtia, dnm-s sekvenireba, Sromatevadi da Zviri meTodebia da mosaxerxebel i SedarebiT mcire raodenobis nimuSebis testirebis dros. axal i, dnm-ze daFuZnebul i Cipebis meTodi bevrad aCqarebs am process, erTbaSad didi raodenobiT nimuSebis anal izis saSual ebas izl eva da aseve, amcirebs Rirebul ebas. amerikul ma kompaniam Affmetrix SeimuSava "genuri Cipebi" rigi, roml ebSic minis fiWebi dafarul ia cnobil i mokle ol igonukl eotidebis "gazonebiT". Cipi Cadgmul ia pl astikur karkasSi da amgvarad, yvel a reaqtia daxurul sistemaSi mimdinareobs. gamosakvl evi dnm ukavSirdeba Cipse fiqsirebul kompl ementur ol igonukl eotidur mimdevrobas. am ukanasknel is miRebul i geometriul i forma gansazRvravs sakvl evis nimuSis genuri mutaciis bunebas. Cipebis warmoeba moicavs fotol iTografiul process, romel Sic Cipse sinTezuri regionebis SerCeviTad aqtivaciis mizniT niRbebia gamoyenebul i. erTi eqspresii s Cips asobiT sxvadasxva genis anal izi SeuZl ia maSin, roca p53 (simsvnis supresori geni) Cipi am genis yvel a cnobil mutacias gamoavl ens.

genuri Cipebis' meTodi Zlieri midgoma iqneba genomis sxvadasxva l okusis paral el uri anal izisaTvis. meTodi amJamad ukve gamoiyeneba genomis, daavadebaTa marTvis, genotipirebis dargebSi da Sesazl oa, bol osdabol os, gamoyenebul i iqnes diagnostikis mizniT. es daavadebebsa da specifiur genur mutaciebs Soris kavSiris dadgenis da popul acii s masStabebis testirebis Catarebis saSual ebas mogvcems. es meTodi adamiანის genomis proeqtisaTvisac SesaniSnavia, roml is daniSnul ebasac adamiანის srul i genomis sekvenireba da misi fizikuri da genetikuri ruqebis Seqmna warmoadgens. sxva meTodebs, roml ebic momavali ramodenime wl is ganmavl obaSi gansakuTrebul mniSvnel obas SeiZens, miekuTvneba real uri drois polimerazul i j aWvuri reaqtia (specifiuri dnm-

Tanmimdevrobis zusti daxasiaTeba) da speqtrul i (ferebze dayrdnobiT) kariotipul i anal izi (struqtrul i qromosomul i aberaciebis zustad dadgena).

### **mol ekul uri Terapia**

mol ekul uri Terapiis dargi saocar sferos warmoadgens da misi mraval mxrivi potenciuri gamoyenebis Taobaze msofl oi masStabis kvl evebi ukve midinareobs. ZiriTadi mol ekul uri strategia moicavs "gamoTiSvis" Terapias, rodesac konstruirebul i mokl e ol igonukl eotidebi ukavSirdeba samizne sainformacio rnm-s da Sedegad, xel s uSl is mis damuSavebasa da transl acias (Sesabamisad cil is produqcias). mol ekul uri samizneebi moicavs BCR-ABL gens qronikul i miel oiduri l eikemiis dros da c-myc, ras da cyclin D onkogenebs, romel Ta eqspresia momatebul ia ramodenime hematol ogiuri daavadebis dros.

al ternatiul strategias warmoadgens ribozimis meTodi, romel Sic genuri inJineriis gziT Seqmnil i mcire rnm-s mol ekul ebi ukavSirdeba samizne rnm-s, rac maTs gaxl eCasa da destruqcias iwvevs.

### **Advances in Hematology**

The article reviews most of the prominent advances in area of hematology – inherited disorders associated with hypercoagulation, iron deficiency anemia relation with chronic diseases and transferrin receptors, thrombotic factors including prothrombin gene mutations and hyperhomocysteinemia, herpes virus association with myeloma, DNA probe arrays, gene chip technology for screening for different gene mutations.

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# sisxl is gadasxmis usafrTxoebi s saki Txebi

fiona regani, kl er teil ori  
BMJ 2002; 325: 143-7<sup>©</sup>

Targma S. arCuaZem

bol o ramodenime wl is ganmavl obaSi sisxl is gadasxmis usafrTxoebas sul ufro meti yuradReba eTmoba. transfuziasTan dakavSirebul i Tavidan acil ebadi Secdomebi, romelic uxSiresad patientis identifikacias exeba, sikvdil obisa da garTul ebebis seriozul mizezad rCeba. garda amisa, moipoveba mzardi informacia virusuli da baqteriuli infekciebis gadatanis riskis Sesaxeb. did britaneTSi gansakuTrebul SeSfoTebas iwvevs kroicfel d-iakobis daavadebis variantuli formis gadacemis Teoriuli Sesazl ebl oba.

am mimoxil vit statiaSi Tavmoyrili arsebuli risk-faqtoebi da arwerilia is axali RonisZieebi, romlebic, rogorc armoCnda, aumj obeseben sisxl is gadasxmis usafrToebas. is agreTve gvacnobs arniSnuli procedurisadmi damokidebul ebisa da mati gamoyenebis cvlilebebs, romlebic gavlenas moaxdens sisxl is komponentebis momxmarebl ebze medicinis nebismier disciplinaSi, zogadi praqtikis eqimebis CaTvlit, romlebic patienteb ganumartaven sisxl is gadasxmis sargebel sa dazians. da bol os, is xazs usvams im special istebis saTanado ganaTlebis da praqtikuli wrTnis saWiroebas, romlebic monawil eoben sisxl is komponentebis daniSvasa da gamoyenebaSi.

## meTodebi

es mimoxil va eyrdnoba informacias yovel wliuri moxsenebebidan: "transfuziis seriozuli safrTxeebi" ([www.shot.demon.co.uk](http://www.shot.demon.co.uk)), "hematologiuri standartebis britanuli komitetis" saxel mZRVanel o principebi ([www.bcsghguidelines.com](http://www.bcsghguidelines.com)) da "sisxl is transfuziis aumj obesebis" sakiTxebisadmi mizRvnil i samedicino dawesebul ebaTa xel mZRVanel i pirebis meore Sexvedra ([www.doh.gov.uk/bbt2](http://www.doh.gov.uk/bbt2)). aseve gamoyenebul ia klinicistebisa da mecnierebis Sesabamisi Tematikis uaxl esipublikaciebis masalebi.

## sisxl is gadasxmasTan dakavSirebul i Secdomebis Sesamcirebel i RonisZieebi

sisxl is gadasxmis dros dasvebul i Tavidan acil ebadi Secdomebi sikvdil obisa da garTul ebebis ucveul od mniSvel ovan mizezad rCeba. aSS-Si sisxl is komponentebis identifikaciis dros dasvebul i fataluri Secdomebis sixSire 1 : 600,000 – 1 : 800,000-s Seadgens, arasasikvdil o Secdomebisa ki – 1 : 12,000-dan 1 : 19,000-mde meryeobs. didi britaneTis jgufis - "sisxl is gadasxmis seriozuli safrTxeebi" (SHOT) informaciis Tanaxmad, SecdomaTa sixSire eritrocitebis yovel 5,5 ml n transfuziaze 335-s Seadgens. SeuTavsebel i sisxl is komponentebis gamoyenebit aixsneba 1999-2000 ww. arniSnuli proceduris uxSiresi gverdiTi movlenebis 70%. ABO sistemis mixedvit sisxl is SeuTavsebl obis Sesaxeb ganacxades 97-jer, matgan 4 SemTxvevaSi Secdoma sasikvdil o gamosavlis usual o mizezad iqca, 29 SemTxvevaSi ki man janmrTel obis dauyovnebel i seriozuli gauareseba gamoiwvia.

SHOT-j jgufis meore moxsenebis Semdeg gamoqveynda transfuziologiuri Secdomebis riskis minimumamde Semcirebis didi britaneTis erovnul i saxel mZRVanel o principebis ganaxlebul i varianti.

ukanasknel i ori wl is ganmavl obaSi mraval i hospitali gaecno saavadmyofos masStabit "uaryofit movlenaTa gancxadebis" sqemebs, rac xel s Seuwyobs transfuziis

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<sup>©</sup> arniSnuli masalis gamoqveyneba SeTanxmebul ia British Medical Journal-ის რედაქციასთან

garTul ebaTa identifikaciisa da anal izis gaadvil ebas. savaraudoa, rom kl inikuri gverdiTi movl enebis ganacxadis arsebul i sqemebi mal e gaerTiandeba didi britaneTis central ur sqemaSi, romel sac nacional uri informaciis Sekrebisa da rekomendaciebis SemuSavebis Tval sazrisiT pacientTa usafrTxoebis erovnul i saagento marTavs.

Secdomebis profil aqtikisaTvis momsaxure personal is ganaTI ebisa da qmediTi transfuziol ogiuri sahospital o protokol ebis danergvis saWiroebis gacnobierebis Sedegad aRniSnul i faqtorebi Seitanes kl inikuri usafrTxoebis sqemaSi. Tumca sisxl is komponentebis transfuziis daniSvnasa da maTi SeTavsebisaTvis nimuSebis aRebaSi monawil e mTel i personal is, maTi Semcvl el ebisa da saagentoebis TanamSroml ebis CaTvl iT, swavl eba rTul i iqneba Sesabamisi resursebis gareSe.

transfuziol ogiuri procesis Secdomebis gamoricxvis mizniT viTardeba saerTaSoriso masStabis axal i sainformacio teqno ogiuri sistemebi.

## **kroicfel d-iakobis daavadebis variantul i formis gadatanis riskis Sesamcirebel i RonisZiebi**

sisxl is gadasxmis gziT cnobil i infeqciebis gadatanis riskis Sesamcirebel i usafrTxoebis zomebi moicavs donorebis SerCeva-gamoricxvas, maTi sisxl is gamokvl evasa da saTanadod damuSavebas, kerZod, l eikocitebis minarevebisagan gaTavisufl ebasa da virusebis inaqtivacias. mraVal qveyanaSi transfuziebTan dakavSirebul i gverdiTi movl enebis monitorirebis mizniT SemuSavebul ia erovnul i "hemosifxizl is" sqemebi. garda amisa, aRniSnul i monacemebis Sekreba evropis masStabiT "hemosifxizl is" evropul i qsel is mier xorciel deba. anal ogiur sistemebi arsebobs aSS-sa da kanadaSi.

sifrTxil is zomebis miuxedavad, axal i infeqciuri agentebiT gamowveul i daavadebebis, maT Soris variantul i kroicfel d-iakobis daavadebis, transmisiis safrTxe isev arsebobs. Tumca mtkicebul ebebi adami anebSi variantul i kroicfel d-iakobis daavadebis gadacemis Sesaxeb ar moiZieba, SeSfoTeba gamoiwvia kvl evam, roml is Tanaxmadac sakvebTan erTad Rrubl ovani encefal opaTiT inficirebul i Zroxis 5 gr tvinis miRebidan 318 dRis Semdeg 400ml sisxl is donaciis Sedegad yovel i 19 asimptomuri cxvridan erTi recipient cxvars saqonl is Rrubl ovan encefal opaTias gadascemS. jerjerobiT aRniSnul i monacemebis mxardamWeri arc erTi kvl eva ar gamoqveynebul a. miuxedavad amisa, did britaneTSi ukve gadaidga pirvel i nabijebi transuziis gziT variantul i kroicfel d-iakobis daavadebis transmisiis SesaZl o riskis Sesamcirebl ad. transpl antaciuri qsovil ebisa da sisxl is mikrobiol ogiuri usafrTxoebis sakiTxebe janmrTel obis dacvis mrCeval Ta komiteti ganxil avs donorTa rigebidan im pirebis garicxvis probl emas, roml ebsac Tavad CautardaT sisxl is komponentebis transfuzia 1980-1996 wl ebSi. am zomebTan dakavSirebul i sirtul e imaSi mdgomareobs, rom igi donorebis daaxl oebiT 10%-is dakargvamde migviyvans da sisxl is komponentebis gamoyenebis Sesabamisi Semcirebis gareSe sisxl is bankebi seriozul i safrTxis winaze aRmoCndebian. savaraudoa, rom variantul i kroicfel d-iakobis daavadebis gamosavl eni testis gamogonebis Semdeg sisxl is maragi kidev ufro metad Semcirdeba.

ramodenime kompania muSaobs kroicfel d-iakobis daavadebis gamosavl eni testis SemuSavebaze. winaswari monacemebiT erT-erTi maTgani xel misawvdomi gaxdeba uaxl oesi 2 wl is manZil ze, ris Semdegac sisxl is erovnul i xel mZRvanel oba pasuxs agebs mis droul gavr cel ebaze (ukanasknel i sasamarTI o procesis dros C-hepatitis transfuziis gziT gavr cel ebasTan dakavSirebiT sisxl is erovnul i xel mZRvanel oba damnaSaved aRiares arasrul fasovani produqciis mowodebasa da C-hepatitis ukve arsebul i testis danergvis dagvianebsi). anonimuri testirebis arCevani gamoricxul i iqneba: evropis kanonmdebl obiT donorebma yvel a gamokvl evaze, romel ic maTi sisxl is nimuSebze Catardeba, informirebul i Tanxmoba unda ganacxadon. maT aseve unda acnobon gamokvl evis yvel a is Sedegi, roml is safuZvel zec sisxl is erovnul i xel mZRvanel oba moqmedebs (mag. ar miRebs maTs sisxl s). savaraudoa, rom mraVal i donori ar daeTanxmeba testirebas, radgan codnis tvirTi gavlenas moaxdens ara mar to maTs janmrTel obasa da bednierebaze, aramed



sicocxl is sadazRvevo pol isis xel misawwdomobazec. sisxl is importi im qveynebidan, sadac saqonl is Rruvl ovani encefal opaTiis SemTxvevebi ar dafiqsirebul a, momxibl avad gamoiyureba, magram imdenad ramdenadac qveynebis umetesoba periodul ad sisxl is komponentebis deficitis winaSe dgas, nakl ebad SesaZl ebel ia, rom maT did britaneTSi arsebul i yovel wl iuri 2,7 ml n doza eriTocitul i masis moTxovnil ebis dakmayofil eba SeZl on.

## **araaucil ebel transfuziaTa Semicireba da sisxl is al tenatiul i saSual ebebis gamoyeneba**

trasfuziul i praqtikis mniSvnel ovani cval ebadoba el eqtiuri qirurgiul i operaciebis dros kargad aris aRweril i. araucil ebel transfuziaTa daqveitebis mizniT gansakuTrebiT mniSvnel ovania operaciis dros janmrTel pacientebSi sisxl is komponentebis gamoyenebis Semicireba. anesTeziol ogebisaTvis gamiznul i bol odroindel i publ ikacia aj amebs efeqtur transfuziul taqtikas qirurgiul pacientebSi. Tumca misi danergva sakmaod probl ematuria, radgan ukanasknel periodamde sisxl i usafrTxo da SeuZRudav wyarod iTvl eboda da sisxl is dazogvis RonisZiebebis dasafinansebl ad Tanxebis mozidva sakmaod rTul ia.

erovnul i sisxl is samsaxuris Sinagani auditis Sedegad miRebul i informaciis Tanaxmad, did britaneTSi gadasxmuli sisxl is daaxl oebiT naxevari qirurgiul pacientebze modis. el eqtiur qirurgiaSi gamoyenebul i sisxl is raodenobis Semicireba pacientis mkurnal obis TiToeul i etapis detal ur dagegmvas moiTxovs. sisxl is komponentebis fasis dazogvis SemTxvevaSic ki arsebobs danarCen Rirebul ebaTa gazrdis riski da amitom xanmokl e periodSi saerTo ekonomikuri danazogi SesaZl oa nul s udrides.

transfuziis dros gadatanil i infeqciebis, imunomodul aciisa (xangrZl ivi msubuqi immunosupresia, romel sac adgil i aqvs sisxl is komponentebis recipientebSi da SedarebiT arasaxarbiel o gamosavl is gamowveva SeuZl ia) da litigation-is Rirebul ebasTan dakavSirebul i xangrZl ivi ekonomikuri danazogi SesaZl oa mniSvnel ovani iyos, magram maTi gamoTvl a Znel ia.

sisxl is komponentebis transfuziis saWiroebis Semicirebis strategiis danergva efeqtur jgufur muSaobas, adeqvatur resursebsa da misi motivaciis naTel gagebas moiTxovs. sisxl is Semcvl el ebi, rogoric aris hemogl obinis xsnarebi da perfl uorokarbonatebi, me-3 fazis kl inikur kvl evebs gadian, magram naxevardaSl is xanmokl e periodis gamo maTi gamoyeneba sakmaod SezRudul i iqneba.

l okal uri Tu erovnul i masStabiT sisxl is komponentebis mxol od maRal kval ificiuri special istebis mier daniSvnis pol itikis gaZl iereba araucil ebel transfuziaTa raodenobis Semicirebis kidev erT midgomas warmoadgens.

## **special isti transfuziol ogebis daniSvna**

ukanasknel i 3 wl is ganmavl obaSi transfuziol ogiaSi special izirebul i praqtikosi eqimebis Stati daSvebul i iqna didi britaneTis 40-ze met saavadmyofoSi, riTac isini imeoreben evropisa da aSS-s anal ogiur gamocdil ebas. umetesi maTgani gamocdil i meddaa, zogierTi - eqimi an biomedicinis sferoSi momuSave mecnieri. es Statebi daSvebul i iqna sisxl is komponentebis usafuZvl o gamoweris SemTxvevebis Semicirebis rekomendebul i pol itikis danergvis mizniT. Tumca special isti transfuziol ogebis dasaqmebis xarjebi zogierT finansists Rrmad afiqrebs, ganmeorebiTma gamoTvl ebma aCvena, rom araucil ebel i transfuziebis fass igi sagrZnobl ad CamorCeba.

special isti transfuziol ogebis ZiriTadi daniSnul eba imaSi mdgomareobs, rom maT aamaRl on momsaxure personal isa da pacientebis codnis done sisxl is transfuziis sargebl isa da zianis Sesaxeb da mxari dauWiron transfuziul i protokol ebisa da saxel mZRvanel o principebis Sefasebasa da ganviTarebas. isini aseve xel s uwyoben

angariSgebis Semowmebas da im strategiis danergvas, romel ic gaumj obesebs sisxl is SekveTasa da daniSvnas. saWiroebis SemTxvevaSi dasaSvebia, rom praqtikosebma pacientis gamokvl evisa da uj redTa gadarCenis meTodikis realizaciaSi uSual od miRon monawil eoba.

## **pl azmis produqtebis usafrTxoebisaTvis gankuTvnil i axal i nabij ebi**

virusul i infeqciebis SedarebiT mgrZnobiare testebis danergvasTan erTad sisxl is komponentebis usafrTxoeba gaizarda. variantul i kroicfel d-iakobis daavadebis potenciuri transmisiis Semcirebis mizniT, 1999 wl is noembridan moyol ebul i gaerTianebul i samefos sisxl is yvel a uj redul i komponentebi gasufTavebul ia l eikocitebis minarevebisagan (l eikodepl ecia). aRniSnul i procedura agreTve amcirebs uj redebTan asocirebul i sxva virusebis, rogoric aris citomegal ovirusi, transmisiis sixSires. axl ad gayinul pl azmaSi, sisxl sa da TrombocitebSi ?-hepatitis gamosavl enad bol o dros SemuSavebul ma nukl einis mJavas testebma "Ria fanj ris periodi" 70 dRidan (serol ogiuri meTodi) 13 dRemde Seamcira da infeqciis gadacemis Sansi 1:25000-dan 1:3 ml n-mde daaqveiTa.

savaraudoa, rom riskis Semdgomi Semcirebis mizniT virusTa inaqtivaciis etapebi, roml ebic sistematurad gamoiyeneba iseTi fraqcionirebul i produqtebis damuSavebis dros, rogoric aris al bumini an imunogl obul inis xsnarebi, amJamad gamoyenebul i iqneba axl ad gayinul i pl azmis da uj redul i komponentebis momzadebisaTvis.

1000-ze meti donorisagan miRebul i pl azmis gaerTianeba da saerTo avzSi Tavmoyra (pul ireba) saWiroa axl ad gayinul i pl azmisa da fraqcionirebul i produqtebisaTvis gamxsnel i fvxnil is dasamatebl ad, aseve maTi damuSavebis efeqturobisa da produqtebis standartizaciisaTvis. pul ireba Teoriul ad erTi donorisagan mTel i avzis dainficirebis risks ganapirobebs. Tumca damuSaveba anadgurebs kafsul irebul virusebs, rogoric aris aiv, hepatiti B da C, yvel a ara-inkafsul irebul i virusi ar eqvemdebareba zemoqmedebas (hepatiti-A an parvovirusi). aseve tardeba pl azmis saerTo avzis gamokvl eva serol ogiuri da polimerazis j aWvuri reaquiis meTodebiT, magram yvel a cnobil i agentebis testireba ver xorciel deba da ukve adgil i hqonda parvovirusis gadacemis ramodenime SemTxvevas. gamxsnel i fvxnil iT damuSavebul i pl azmis gamoyeneba farTod aris gavrcel ebul i, Tumca evropis zogierT qveyanaSi msgavsi meTodiT damzadebul i pl azmis gamoyeneba akrZal ul ia. al ternativas meTil enis l urjiT damuSaveba warmoadgens, romel ic SeiZl eba pl azmis cal keul dozebTan iyos gamoyenebul i. is iwvevs virusebis SedarebiT farTo speqtris inaqtivacias, magram ufro ZviradRirebul i meTodia da didi drois xarjvasTan aris dakavSirebul i. garda amisa, Mmetil enis l urji potenciurad ufro toqsiuria.

sisxl isa da qsovil ebis mikrobiol ogiuri usafrTxoebis didi britaneTis mrCeval Ta komiteti amJamad ganxil avs sakiTxs, Tu pacientTa romel i j gufisTvis aris mizanSewonil i didi britaneTis donorebisagan miRebul i axl ad gayinul i pl azmis damuSaveba virusebis inaqtivaciis mizniT. ingl isel i donorebis axl ad gayinul i pl azmis meTil enis l urjiT damuSaveba pirvel ad 2002 maisSi ganxorciel da 1996 wl is 1 ianvris (TariRi rodesac variantul i kroicfel d-iakobis daavadeba oficial urad gamoiricxa didi britaneTis adamianta kvebis j aWvidan) Semdeg dabadebul bavSvTa da axal Sobil TaTvis.

gamxsnel i fvxnil iTa da meTil enis l urjiT damuSaveba baqteriebsa an virusis msgavs nawil akebze, romel ic rezistentul ia eqstremal uri temperaturul i rejimis mimarT, ar moqmedebs. ar arsebobs am ukanasknel Ta inaqtivaciis mosaxerxebel i meTodi. Tumca aRsaniSnavia, rom sisxl is komponentebis, gansakuTrebiT Trombokoncentratebis, baqteriebiT dabinZureba transfuziul TerapiasTan dakavSirebul i sikvdil obisa da avadobis bevrad ufro mniSvnel ovani mizezia, vidre virusebis transmisia. paTogenebis inaqtivaciis mesame meTodi ganxil eba rogorc universal uri meTodi, roml iTac miRweva ara marto virusebis, aramed baqteriebis, parazitebis da l imfocitebis inaqtivaciac.

ფსორალენ S-59 დაულტრისფერი სხივებიერთდროულად გამოიყენება individualური ტრომბოკონცენტრატების დასამუშავებლად ზელინგის სისტემაში (Helynx system), რომელიც დნმ-სა და რნმ-ს ჯვარედინ კავშირს უზრუნველყოფს. ფსორალენის მეორე ფორმა - S-303, რომელიც გამიზნულია ერითროციტული მასების დასამუშავებლად, განვითარების ეტაპზეა. მარალი რიგების დასრულებით მიუხედავად, ამ სისტემის ვირუსების მსგავსი ნაწილების გამოვლენის რისკი უკიდურესად პოტენციური პათოგენის ინაქტივაცია შეუძლია. გარდა ამისა, იგი გამოიხატავს ტრანსფუზიასთან ასოცირებული "ტრანსპლანტატი რეციენტის ვინააღმდეგ რეაქციის" პროფილს, რომელიც სისხლის კომპონენტების დასხივების აუცილებლობას, რადგან იგი უზრუნველყოფს არნისულ რეაქციას პასუხისმგებელი დონორების ლიმფოციტების განადგურებას.

მომავალში სესაზღოა, პათოგენთა ინაქტივაციის არქვიტ სისტემად იქცეს, ვიდრე სხვა მეთოდები დაინერგება.

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Human error is a cause of transfusion related morbidity and mortality: these errors are entirely avoidable. The adoption of a lower "transfusion trigger" is gaining acceptance. Whether or not variant Creutzfeldt-Jakob disease is transmissible by transfusion, it may have a considerable impact on availability of blood for transfusion. Concerted efforts must now be made to reduce inappropriate blood use and to use alternatives and blood sparing agents. Pilot studies of barcode patient identification systems are assessing their feasibility in various clinical settings. Phase III clinical trials of blood substitutes (haemoglobin solutions and perfluorocarbons) are in progress.

## arCil kobal aZis saxel obis sainformacio teqnoI ogiebis kompiuterul i kl asis gaxsna

2001 wl is 24 dekembers saaxal wl od gamzadebul Tbil isSi samwuxaro cnoba movida j orj iis Statis q. atl antis emoris universitetis kl inikidan – gardaicval a cnobil i eqimi da sazogado moRvawe – batoni arCil kobal aZe.

batoni arCil is xanmokl e da nayofieri moRvaweoba uaRresad mraval ferovani iyo. cnobil i profesor is – saqarTvel oSi kl inikuri farmakol ogiis fuZemdebl is – sergo kobal aZis Svil ma Rirseul ad gaagrZel a mamis tradicia da Camoayal iba Tbil isis samedicino institutis kl inikuri farmakol ogiis kursi, iyo saqarTvel os kl inikur faramakol ogTa sazogadoebis Tavmj domare, farmakoqimi is institutis gamyofil ebis gamge, aTeroskl erozis da l ipiduri cvl is Sesaxeb kvl evebis erT-erTi l ideri, msofil ioSi cnobil i mecnieri. 1992 wl idan batoni arCil i iyo atl anta-Tbil isis j anmrTel obis partniorul i programebis koordinatori. am programis fargl ebSi, amerikel i partnioris - emoris universitetis profesor is ken uokeris xel SewyobiT a. kobal aZis TaosnobiT Tbil isSi daarsda gadaudebel i samedicino daxmarebis saswavl o centri, erovnul i sainformacio saswavl o centri, saqarTvel os saeqTno asociacia, neonatol ogTa arasamTavrobo organizacia `neonatusi~, gazeTi "medicina da farmakol ogia", tardeboda seminarebi sazogadoebrivi j andacvis, saeqTno swavl ebis, j andacvis menej mentis da dafinansebis, sadazRvevo medicinis sakiTxebze, ganxorciel da tel emedcinis da distanciuri samedicino swavl ebis pirvel i pil oturi proeqtebi, daiwyo partniorul i qarTul -amerikul i j andacvis programebi quTaissa da mcxeTaSi. b-ni arCil is moRvaweoba saqarTvel os warmomadgnel ad evropis sabWos j andacvis komitetSi aseve nayofieri iyo da Sedegad mohyva j anmrTel obis teqnoI ogiebis Sefasebis da kl inikuri praqtikis gaidl ainebis momzadebis sferoSi wingadadgmul i nabij ebi.

2003 wl is 25 dekembers erovnul i sainformacio saswavl o centris (essc) da internet-kompania `houmkom kommunikeySenz~ (atl anta, aSS) iniciativiT essc-is bazaze gaxsna b-ni arCil kobal aZis saxel obis sainformacio teqnoI ogiebis kl asi. am movl enisadmi miZRvnil sxdomas daeswrnen b-ni arCil is kol egebi, megobrebi, moswavl eebi da axl obl ebi. sxdoma gaxsna erovnul i sainformacio saswavl o centris direqtorma da organizacia "partniorebi j anmrTel obisaTvis" gamgeobis Tavmj domarem zviad kirtavam. stumrebs miesal ma saqarTvel os Sromis, social uri da j anmrTel obis dacvis ministri b-ni amiran gamyrel iZe. man il aparaka im did amagze, roml is gamo arCil kobal aZes "saqarTvel os j andacvis el Cs" uwodebdnen. batoni arCil is enTuziazmsa, daxvewil intel eqtsa da Rma codnaze dafuZnebul i strategiul i xedva momaval Sic daadasturebs im prioritetebis gamarTI ebas, romel Tac igi emsaxureboda. Tavis uaRresad emociur da Tbil gamosvl aSi batoni arCil is didi xnis megobarma da partniorma, emoris universitetis profesorma, organizacia `partniorebi saerTaSoriso ganvitar ebisaTvis- direqtorma profesorma ken uokerma batoni arCil i daaxasiaTa, rogorc adamiani, romel ic bol omde dauzigavad emsaxura Tavis xal xs, rogorc profesional i, rogorc saerTaSoriso moRvawe, humanisti, ganmanaTI ebel i. `me madl obel i var bedis, rom iseT adami ans Sevxdidi cxovrebaSi, rogorc arCil i iyo-, - ganaxxada b-nma uokerma, - `adami ans, romel sac Rma

მისწრაფები და ფართო horizontი ჰქონდა, და რომელმაც ბევრი გვასწავლა ან თავისი ხანმოკლე ცხოვრებით.

არც ის კობალიძის სესახებ მოგონებით გამოვიდნენ მისი მეგობრები და კოლეგები - საკრებულოში ოსტეტიკური უნივერსიტეტის რექტორი პროფ. რამაზ ხუროჯი, საზოგადოებრივი უნივერსიტეტის დირექტორი პროფ. რამაზ ურუჯაძე, პროფ. ალექსანდრე ალდაშვილი, პროფესორი ირაკლი ფარავა.

ამის შემდეგ გაიმართა კომპიუტერული პროგრამების კლასის გახსნა. აქვე ანტანის მოკმედი ინტერნეტ-კომპანია "ჰომკომ კომუნიკაციების"-ის ხელმძღვანელი ებრაძე გია ბოკუჩავამ და ნინო დიჯაშვილი მაგნიტის, რომელიც არც ის კობალიძის სესახებ მოგონებით გამოვიდნენ მისი მეგობრები და კოლეგები - საკრებულოში ოსტეტიკური უნივერსიტეტის რექტორი პროფ. რამაზ ხუროჯი, საზოგადოებრივი უნივერსიტეტის დირექტორი პროფ. რამაზ ურუჯაძე, პროფ. ალექსანდრე ალდაშვილი, პროფესორი ირაკლი ფარავა.

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მინისტრი ამირან გამყრელიძე,  
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უოკერი არც ის კობალიძის  
სახელმწიფო უნივერსიტეტის  
კლასის გახსნაზე



arÇil kobal aZis axl obl ebi  
da kol egebi



nino doij aSvi l i a. kobal aZis  
sax. kompiuterul i  
programirebis kl asis  
prezentaciaze

internetis samedicino  
daij esti

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\* - teqniki mizezebis gamo Jurnal i da daij esti daibeWda 2004 wl is ianvarSi



2003 wl is revmatol ogiis mimoxil va: gasul i wl is miRwevebi da momavl is gegmebi el eqtronul ma Jurnal ma `medsqeif` TxovniT mimarTa saredaqcio kol egiis wevrs, medicinis mecnierebaTa doqtor robert foqss, raTa mas warmoedgina misi azrit yvel aze mniSvnel ovani miRwevebi 2003 wel s revmatol ogiaSi da agreTve 2004 wl is gegmebi.

bol o wl ebSi, mkvl evarebma gansacvifrebel i Sedegebi miiRes revmatol ogiur daavadebaTa mkurnal obaSi simsiwnis nekrozul i faqtoris inhibitorebiT, roml ebic saocrad warmatebul i aRmoCnda revmatoidul i arTritis mqone pacientebSi Terapiul i pasuxis miRebaSi. garda amisa, mecnierebma aRmoaCines srul iad axal i receptorebi da Terapiul i samizneebi. amave dros, simsiwnis nekrozul i faqtoris inhibitorebiT mkurnal obis SezRudul obam revmatoidul i arTritis mqone zogierT pacientSi da maTma SedarebiT mcire sargebel ma sxva iseTi daavadebebis mkurnal obaSi, rogoric aris sistemuri wiTel i mgl ura da Sogrenis sindromi, mecnieribs ubiZga miiyvana Terapiul i intervenciebis sxva/axal i gzebis Ziebisaken.

2004 wel s dagegmil ia im meqanizmebis Seswavl a, roml ebic safuZvl ad udevs Tandayol il i (ara HLA-dakavSirebul i) da SeZenil i (HLA-dakavSirebul i) imunuri sistemebis urTierTqmedebas. gasul i wl is ganmavl obaSi, genomuri da proteomul i skringis meTodebi miuTitebdnen imaze, rom l da ll tipis interferonTan dakavSirebul i mol ekul ebi, rogorc Cans, iwveven Tandayol il i da SeZenil i imunuri sistemebis urTierTmoqmedebas. mecnierebi didi xania saubroben imaze, rom autoimunuri daavadeba aris genetikuri da garemo faqtorebis urTierTqmedebis Sedegi. axl a, rogorc Cans, xdeba im specifiuri mol ekul ebisa da receptorebis amocnoba, romel Ta daxmarebiT moxdeba am urTierTqmedebis meqanizmi s axsna. momaval i wl is mizania am meqanizmi kl inikaSi gamoyeneba, raTa gagebul da winaswar prognozirebul iqnas mkvl evarebis warumatebl oba da agreTve maTi miRwevebi simsiwnis nekrozul i faqtoris inhibitoriT mkurnal obis mxriv.

gasul wel s, mniSvnel ovani iyo agreTve Buj redebis Seswavl a, roml ebzec wina aTwl eul is ganmavl obaSi mcire informacia moipoveboda Tuj redebTan SedarebiT. imis aRmoCenam, rom Buj redebis antisxeul ebma SesaZl oa mniSvnel ovani rol i iTamaSon ara marto revmatoidul i arTritis, aramed sxva daavadebebis dros (mag. sistemuri wiTel i mgl ura), SesaZl oa mecnierebi miiyvanos Buj redebis regul acis ufro farTo gagebamde. da bol os, revmatol ogebi kvl av ver aRweven konsensus fibromial giasTan dakavSirebiT. isini namdvil i dil emis winaSe dganan. "avadmyofi tvinis" sindromis meqanizmebi, romel Ta kvl eva intensiurad mimdinareobs iseTi darRvevebis dros, rogoric aris gafantul i skl erozi da dabereba, revmatol ogebis mier dRemde ar aris safuZvl ianad Seswavl il i. imedia, rom momaval i wl is ganmavl obaSi revmatol ogiur pacientebSi ufro Rmad iqneba Seswavl il i genetikis meqanizmebi da neiroqimikosebis mier Seqmnil i citokinebi.

#### gasdiT ki medikamentebis moxmarebis vada?

niSnavs Tu ara waml is fl akonze aRniSnul i vada raimes? Tu magal iTad, tail enol is boTI ze miTitebul ia is, rom misi gamoyeneba SeiZl eba 1998 wl is ivnisamde, xol o axl a 2003 wl is agvisto, SeiZl eba Tu ara misi miReba? Tu man Tavisi Zal a dakarga da arafers kargs ar mogvitans?

sxva sityvebiT, arian Tu ara waml is mwarmoebl ebi momxmarebl ebTan marTal ni, roca isini waml ebze vadas miuTiteben?

medicinis mecnierebaTa doqtorma tomas kramerma Cikagos universitetidan, (il inoisi Stati), zogadi l iteraturisa da samedicino monacemebis daxmarebiT scada pasuxi gaeca am kiTxvebze.

upirvel es yovl isa, vadis gasvl is TariRi, roml is miTitebac aSS kanonmdebl obiT 1979 wl idan xdeba, miuTitebs mxol od imaze, rom mwarmoebel i waml is usafrTxoebisa da moqmedebis unaris garantias mxol od am dromde iZl eva, anu es ar niSnavs imas, ramden xans inarCunebs sinamdvil eSi esa Tu is medikamenti moqmedebisa da usafrTxoebis unars.

garda amisa, medicinis muSakebi erTxmad amboben imas, rom waml is gamoyeneba misi vadis gasvl is Semdegacaa usafrTxo. iSviaTi gamonakl isebis garda, adamiani ar gaxdeba

avad da, mi Tumetes, - I etal uri dasasrul i ar eqneba - waml is mi Rebas vadis amowurvis Semdeg.

kvl evebis Tanaxmad, vadagasul ma waml ebma SesaZl oa dakargon Zal a droTa ganmavl obaSi (5-50%). ase rom vadis gasvl idan 10 wl is Semdegac ki waml ebs SeiZl eba Tavdapirvel i Zal a da moqmedebis unari hqondeT.

erTerTi yvel aze masStaburi kvl eva am sakiTxTan dakavSirebiT Catar da 15 wl is win aSS-is mier. Sedegebis mixedviT, medikamentTa 90% kvl av usafRTxo da efeqturia vadis gasvl idan 15 wl is Semdegac ki.

amgvarad, vadis gasvl is TariRi ar niSnavs imas, rom wamal i kargavs Tavisi moqmedebis efeqturobas da xdeba sazano. `mwarmoebl ebi vadis amowurvis TariRs ufro metad vaWrobis mizniT da ara mecnierul i Tval sazrisiT miuTiTeben", Tqva aSS sakvebisa da waml is administraciis farmaceutma, batonma fl aertim. 'maTTvis araxel sayrel ia produqtis "Taroze" dadeba 10 wl is ganmavl obaSi. maT surT tvirTbrunva".

aspirinis gamoyenebam SesaZl oa Seamciros prostatitis kibos ganvitarebis riski, Tanaxmad `briTiS j ornal ov qenser" 12 ianvris nomerSi gamoqveynebul i meta-anal izis Sedegebisa.

prostatitis kibos SemTxvevebi sakmaod didia aSS-Si da kanadaSi da "igi sikvdil obis maCvenebl iT meore adgil zea fil tvis kibos Semdeg", Tqva prof. sal aedin mahmudma (Dr. Salaheddin Mahmud). "Zal ze samwuxaroa is faqti, rom amJamad Cven ar viciT im cvl adi risk-faqtorebis Sesaxeb, rac xel s uwyobs am daavadebis ganvitarebas".

imis gamo, rom arasteroidul i anTebissawinaaRmdego waml ebi xmarebisa da prostatitis kibos riskis Sesaxeb Catarebul i arcerTi kvl eva ar gvaZl evs sabol oo daskvnis gakeTebis SesaZl ebl obas, prof. mahmudma da misma kol egebma Caatares 12 kvl evis sistemuri ganxil va da meta-anal izi, raTa daedginaT arasteroidul anTebissawinaaRmdego waml ebsa da prostatitis kibos Soris arsebul i kavSiris simtkice.

kvl evis Tanaxmad, aspirinis gamoyeneba dakavSirebul i iyo ukve ganvitarebul i prostatitis kibos riskis 30%-iT da prostatitis kibos saerTo riskis 10%-iT SemcirebasTan. kvl evam daadgina Zl ieri ukuproporciul i kavSiri aspirinis xmarebasa da prostatitis kibos risks Soris, magram mxol od im adami anebSi, roml ebic sul mcire 4 wl is manZil ze iRebden aspirins.

"rogorc I laboratoriu l i kvl evebidan da adami anebze dakvirvebidan Cans, arasteroidul i anTebissawinaaRmdego waml ebi (da gansakuTrebiT aspirini) prostatitis kibos winaaRmdeg garkveul damcvel obiT rol s TamaSoben", ganacxada prof. mahmudma. "j erj erobiT Zal ze naadrevia prostatitis kibos prevenciis mizniT aspirinis regul arul i gamoyenebis rekomendireba, Tumca swored axl a aris Sesiferisi dro prospeqtul i kvl evebis Casatarebl ad".

amerikel i nevrol ogebis panel ma ganacxada, rom xanmokl e iSemiuri Setevis diagnozs xSira d SecdomaSi Sehyavs eqimebi da aman SeiZl eba pacientebSi daavadebis umarTavobamde migviyvanos. yvel a aseTi pacienti unda CaiTval os insul tis mqone pacientad, ganacxades maT. kal i forniis universitetis profesorma san franciskoSi kl aiborn j onstonma (Dr. S. Claiborne Johnston) amerikis insul tis asociaciis 29-e saerTaSoriso konferenciaze damswre sazogadoebas ganucxada imis Sesaxeb, rom xanmokl e iSemiuri Setevis mqone pacientebis 24-saaTiani hospital izacia xarj -efeqturia, vinaidan insul tis riski am drois ganmavl obaSi Zal ze maRal ia.

Ukal i forniis universitetis j gufma ganxil a 24-saaTiani hospital izaciis dros gaweul i daxmarebis xarj -efeqturoba xanmokl e iSemiuri Setevis mqone pacientebSi, roml ebsac gadaudebel i samedicino daxmareba gaewiaT san-franciskos 11 hospital Si. maT daadgines, rom hospital izaciis SemTxvevaSi, insul tis dadgena misi ganvitarebis pirvel ive saaTSi moxda dapacientebis droul ad CautardaT Trombol izuri Terapia.

amis Sedegad moxda garTul ebebis minimumamde dayvana da ufro xanmokl e hospital izacia im pacientebTan SedarebiT, roml ebic gaweres xanmokl e iSemiuri Setevebis simptomTa gaqrobisTanave.

“ara aqvs aranairi azri xanmokl e iSemiuri Setevebis insul tisagan gamoyofas/gancal kevebas”, ganacxada prof. maiel kma (Dr. Mielke). “rogorc xanmokl e iSemiuri Setevebi, ise insul tebi warmoadgenen erTi da imave daavadebis progresirebis dros ganvitarbul movl enebS”, daeTanxmnen maiel kis mosazrebas prof. adamsi da prof. jonstoni (Drs. Adams and Johnston). samive maTgani Tvl is, rom xanmokl e iSemiuri Setevebis diagnozs SecdomaSi Seyavs eqimebi. rogorc pacienti, aseve bevri eqimi SesaZl oa dakmayofil des xanmokl e iSemiuri Setevebis simptomebis gaqrobiT, ganacxades panel istebma. “xanmokl e iSemiuri Setevebis mqone pacientebS aqvT mdgomareobis gauaresebis ufro maRal i riski da insul tis gamosworebis ufro mcire al baToba, Tavad insul tis mqone pacientebTan SedarebiT”, uTxra prof. jonstonma Reuters Health-s.

amerikis gul is asociaciam ganaaxl a gaidl ainebi qal ebSi kardiovaskul uri daavadebis prevenciis Sesaxeb. bol o gaidl ainebi gamoica 1999 wel s, xol o axal i saxel mZRvanel o, romel ic dabeWdil ia Jurnal is `sergul eiSen"-is 10 Tebervl is nomerSi, rekomendacias uwevs kardiovaskul ur riskze dafuznebul individual ur mdgomas. “Cven pirvel ad vacxadebT naTI ad imis Sesaxeb, Tu ra viciT da ra ara”, ambobs saredaqcio kol egiis Tavmj domare, medicinis mecnierebaTa doqtori, Lori moska (Lori Mosca).

“qal ebSi kardiovaskul uri daavadebis arseboba-ararsebobis mdgomareobasTan dakavSirebul i mosazreba Seicval a im mosazrebiT, rom kardiovaskul uri daavadeba viTardeba drois ganmavl obaSi da yvel a qal Si is ganvitarbebis raRac etapzea”.

kardiovaskul uri daavadebis prevenciasTan dakavSirebul i yvel a arsebul i kvl evis gadasinj vis Semdeg panel ma daaskvna, rom framingemis gul is kvl evis mier Seqmnil i standartizebul i meTodi adgens mkurnal obis agresivul obas miokardiumis infarqtis 10-wl ian riskze dafuznebiT. dabal i riski gansazRvrul ia rogorc 10%-ze nakl ebi, saSual o riski – 10%-dan 20%-mde, xol o maRal i riski – rogorc 20%-ze meti.

magal iTad, aspiriniT mkurnal oba ar aris rekomendebul i dabal i riskis mqone qal ebSi; misi gamoyeneba mizanSewonil ia yvel a maRal i riskis mqone qal Si da im adamianebSi, roml ebSic dadasturebul ia kardiovaskul uri daavadebis diagnozi. cxovrebis iseTi faqtorebi, rogoric aris sigaretis mowevis Sewyveta, j ansaRi kveba da normal uri wonis SenarCuneba, aucil ebel ia ukve arsebul i kardiovaskul uri daavadebis progresirebisa da agreTve mTavari risk-faqtorebis prevenciisaTvis.

maRal i riskis mqone qal ebSi rekomendebul ia ACE-inhibitorebisa da beta bl okatorebis gamoyeneba. agreTve qol esterinis damwevi medikamentebis, upiratesad statinebis gamoyeneba im qal ebSic ki, roml ebSic dabal i simkvrivis l ipoproteinebis qol esterinis done 100 mg/dl –ze nakl ebia. miuxedavad imisa, rom statinebiT rutinul i Terapia adre ar iyo rekomendebul i am qal ebSi, mimdinare kvl ebebis mixedviT statinebiT mkurnal obam Sedegi gamoiRo am qvej gufSi. niacini da boWkovani preparetebi zogierT SemTxvevaSi SesaZl oa Sedegis momcemi iyos.

winagul Ta fibril aciis mqone qal ebSi, roml ebic aseve dganan embol iuri insul tis saSual o an maRal i riskis winaSe, insul tis prevenciisaTvis mizanSewonil ia varfarinis gamoyeneba. varfarini SeiZl eba aspiriniT Cavanacvl oT im qal ebSi, roml ebSic varfarinis miReba ar aris rekomendebul i, an romel Tac aqvT insul tis ganvitarbebis SedarebiT dabal i riski.

rodesac sisxl is wneva  $\geq 140/90$  mm vwy, iniSneba antihipertenziul i agentebi, maT Soris Sardmdenebi, raTa sisxl is wneva ar aRematebodes 130/80 mm vwy. diabetis mqone qal ebSi sisxl Si Saqris Semcvel oba kontrol irebul i unda iyos imgvarad, rom gl ikozil irebul i hemogl obinis donem normis fargl ebs ar gadaalWarbos ( $<0,7\%$ ). kardiovaskul uri daavadebis mqone qal ebSi unda moxdeS depresiul i mdgomareobis Sefaseba da misi arsebobis SemTxvevaSi CatardeS saTanado mkurnal oba.

da bol os, dabal i riskis mqone pacientebSi intervenciis sxva saxeebs, roml ebic SesaZl oa usargebl o da xSirad zianis momtanic ki iyos, warmoadgenen hormonal uri Terapia, antioqsidantebi da aspirinoTerapia. Tumca, omega-3 cximovani mJavebisa da fol iumis mJavis damateba, j ansaR kvebasTan erTad, SesaZl oa marTebul i iyos zogierT maRal i riskis mqone pacientSi.

eqimTa amerikul i kol ej is gaerTianebul ma komitetma da oj axis eqimebis amerikul ma akademiam Terapevtebisa da oj axis eqimebisaTvis gamosca eqvsi rekomendacia, rac maT daexmareba winagul Ta fibril aciis mqone pacientebis mdgomareobis marTvaSi. axal i gaidl ainebi dabeWdil ia `anal s ov internal medisin" 16 dekembris nomerSi.

"saerTod praqtikaSi miRebul ia is, rom yvel a SesaZl ebl oba iqnas gamoyenebul i pacientebSi gul is normal uri sinusuri ritmis aRsadgenad", ganacxada medicinis mecnierebaTa doqtorma, panel is TanaTavmj domarem, maikl l efevrma (Michael LeFevre). saukeTeso kvl evebis Tanaxmad, winagul ovani fibril aciis mqone pacientebSi ufro metad marTebul ia gul iscemis sixSiris/pul sis kontrol i da insul tis prevencia sixl is gamaTxel ebel i saSual ebebiT, vidre sinusuri ritmis aRdgenis mcdel oba. kvl evebis Tanaxmad, garTul ebebis da sikvdil ianobis maCvel ebl is SencirebaSi ukeTesi Sedegi moitana pul sis da ara ritmis kontrol ma, pacientTa normal uri ritmis SenarCunebis mizniT gamoyenebul i medikamentebis gverdiTi efeqtebi ki gacil ebiT meti iyo sargebel Tan SedarebiT".

mimdinare kvl evebis Sedegebma aseve daamtka parkuWTA SekumSvis sixSiris kontrol is upiratesoba sinusuri ritmis aRdgenis strategiasTan SedarebiT. pl acebosTan SedarebiT, insul tis prevenciaSi varfarins ufro meti sargebel i hqonda, vidre aspirins. Tumca, varfariniT gamowveul i didi sixl denis riski gacil ebiT maRal i iyo aspirinTan SedarebiT.

es rekomendaciebi exeba pacientebSi gul iscemis sixSiris kontrol s qronikul i antikoagul aciis meSveobiT da qronikul i antikoagul aciis mizniT saTanado doziT varfarinis gamoyenebas, Tu insul tis riski ar aris dabal i, an varfarinis gamoyenebas ukuCveneba aqvs. pul sis kontrol isaTvis rekomendebul ia atenol ol is, metoprol ol is, dil tiazemis an verapamil is gamoyeneba. gadaudebel i kardioversia SeiZl eba miRweul iqnas pirdapiri an farmakol ogiuri konversiit. im pacientebSi, roml ebic el eqtrul kardioversias gadian, mizanSewonil ia transezofagul i eqokardiografia intrakardial uri Trombis arsebobis gamosaricxad.

### periferiul i arteriul i daavadebisa (pad) da diabetis mqone pacientebis mkurnal obis gaidl ainebi

amerikis diabetis asociaciam gamosca pirvel i SeTanxmebul i ganxadeba periferiul i arteriul i daavadebisa (pad) da diabetis mqone pacientebis mkurnal obis Sesaxeb, rac daibeWda Jurnal is `daiabetis qear" 2003 w. dekembris nomerSi.

axal i gaidl ainebi rekomendacias uweven 50 wel ze maRal i asakis yvel a diabetis mqone pacientSi wvivmxris indeqsiT skringis Catarebas.

50 wel s zemoT myofi diabetis mqone pacientebis daaxl oebiT erT mesameds savaraudod aqvs periferiul i arteriul i daavadeba. mis daudgenl obas SesaZl oa mohyves iseTi uaryofiTi Sedegebi, rogoric aris qveda kidurebis amputacia da miokardiumis infarqtis an insul tis ganvitarebis xuTwl iani riskis zrda, sikvdil ianobis 33%-iani maCvenebl iT.

im pacientebSi, roml ebSic ver xdeba periferiul i arteriul i daavadebis diagnozis dasma da Sesabamisad mkurnal obac usargebl oa, panel i rekomendacias uwevs periferiul i arteriul i daavadebis skringis Catarebas 50 wel ze meti asakis yvel a pacientSi da agreTve diabetis mqone 50 wl amde asakis pacientebSic, Tu maT sxva risk-faqtorebi gaaCniaT (mag. sigaretis moweve, hipertenzia, hiperqol esterinemia da diabetis 10 wel ze meti xnis anamnezi).

miuxedavad imisa, rom periferiul i arteriul i daavadeba xSirad simptomebis gareSe mimdinareobs, damaxasiaTebeL simptomebs miekuTvneba: fexebis Sesi eba siarul is dros, rasac dasvenebul mdgomareobaSi adgil i ara aqvs, agreTve terfebsa da fexebze Wril obebisa da inficirebul i adgil ebis rTul i Sexorceba.

panel is mier SemoTavazebul i mkurnal obis strategia moicavs kardiovaskul uri risk-faqtores agresul marTvas da periferiul i arteriul i daavadebis simptomebis mkurnal obas. yvel a diabetes mqone pacientSi risk-faqtores Semcireba unda moxdes mowevis SewyvetiT, antiTrombol izuri TerapiiT, sisxl Si gl ukozis (A<sub>1c</sub>) Semcvel obis 7%-ze, sisxl is wnevis 130/80 mm vwy-ze da dabal i simkvrivis l ipoproteinebis qol esterinis 100 mg/dl -ze qvemoT dayvaniT. periferiul i arteriul i daavadebis simptomebis mkurnal oba moicavs varj iSS, medikamentur Terapias da revaskul arizacias.

### J andacvis msofi io organizaciAm gamosca gaidl ainebi mil ionobiT dol aris

Rirebul ebis mcnareul i medikamentebis usafrTxoebisa da efeqturobis Sesaxeb, sadac aRniSnul ia, rom zogierTi bal axovani produqti SesaZl oa Seicavdes toqsikur nivTierebebs. gaidl ainebi gansazRvraven ama Tu im mizniT, magal iTad wonis dasakl ebad gamoyenebul i samkurnal o mcnareebis zrdisa da moyvanis saukeTeso teqnol ogias, agreTve - ama Tu im mcnareul i medikamentis Semadgenl obis zustad miTitebis aucil ebl obas.

gaertianebul i erebis organizaciis saagentos Tanaxmad, bal axovani mcnareebi 60 mil iardi Rirebul ebis Semosaval siZl evian wl iurad, Tumca samkurnal o mcnareebis regul irebas bazarze mxol od CineTi, iaponia da evrokavSiri axerxeben. "gaidl aini ar aris mimarTul i konkretul ad romel ime qveynisadmi, igi sxvadasxva qveynebs sTavazobs bazarze samkurnal o medikamentebis regul irebis/mowesrigebis sqemas", ganacxada J andacvis msofi io organizaciis esenciuri (ZiriTadi) waml ebisa da medikamentebis departamentis moqmedma direqtorma, hans hogerzeil ma (Hans Hogerzeil) axal i amebis brifingze.

aSS sakvebisa da waml is administraciAm gasul dekembers momxmarebl ebi gafrTxil a efedras Semcvel i kvebiTi damatebebis usafrTxoebis Sesaxeb. adrenal inis msgavs stimul ators, romel ic wonaSi dasakl ebad da sportul i aqtivobis gazrdisaTvis gamoiyeneba, SesaZl oa hqondes saxifaTo kardial uri gverdiTi efeqtebi.

afrikaSi mosaxl eobis 80% pirvel adi samedicino daxmarebis dros tradiciul mcnareul waml ebs iyenebs. CineTSi waml is moxmarebis 50% bal axovan mcnareebze modis. J andacvis msofi io organizaciis Tanaxmad, evropasi, Crdil oET amerikasa da sxva industriul qveynebsi mosaxl eobis 50%-ze mets erTxel mainc aqvs miRebul i damatebiTi an al ternatiul i medicina.

"amJamad CineTidan, indoeTidan da pakistani dan usazRvrod didi raodenobiT xdeba samkurnal o mcnareebis eqsporti sxvadasxva qveynebsi. vinmem unda daaregul i ros maTi usafrTxoeba mainc", ganacxada hogerzeil ma.

### Rheumatology Briefing for 2003: A Look at the Year Behind and the Year Ahead

Online journal Medscape asked its Editorial Advisory Board member Robert I. Fox, MD, PhD, to present what he thought were the most important developments in rheumatology in 2003, and what 2004 might bring.

In recent years, investigators have been blessed with monumental breakthroughs in therapy such as tumor necrosis factor (TNF) inhibitors that were unexpectedly successful and brought new high levels of expectation for acceptable therapeutic response of rheumatoid arthritis patients. The mechanisms responsibility for TNF benefit have been unraveled to yield a family of new receptors and therapeutic targets. Also, the limitations of TNF therapy in some rheumatoid arthritis patients and the relatively less dramatic benefit in other diseases, such as systemic lupus

erythematosus and Sjögren's syndrome, have led to the search for additional pathways that may yield to therapeutic intervention.

In 2004, it is planned to study the mechanisms that underlie the interaction of innate (non-HLA-linked) and acquired (HLA-linked) immune systems. During the past year, methods such as genomic and proteomic screening have suggested that molecules related to interferon type I/II signature seem to involve the interaction of the innate and acquired immune systems. Scientists have long talked about autoimmune disease as the result of the interaction of genetic and environmental factors. Now, it appears that specific molecules and receptors that actually explain the mechanism of this interaction are being recognized. The goal of the next year will be to apply these lessons of molecular biology to the clinic in order to understand and predict researchers failures as well as their successes with anti-TNF therapy.

The runner up, in a close vote, was the increased recognition of the B cell, which has languished in the shadow of the T cell during the past decade. The finding that anti-B-cell antibodies may have an important role not only in some rheumatoid arthritis patients but also in other diseases, such as systemic lupus erythematosus, may lead to a wider understanding of B-cell regulation.

Finally, rheumatologists have the failure to form a consensus on fibromyalgia. They are faced with a real dilemma. However, the mechanisms of "sick brain" syndrome that are under intensive investigation in disorders such as multiple sclerosis or even aging have not been carefully studied by rheumatologists. Hopefully, the mechanisms of genetics and cytokines developed by neurochemists will be studied in rheumatology patients during the next year.

#### Do medications really expire?

Does the expiration date on a bottle of a medication mean anything? If a bottle of *Tylenol*, for example, says something like "Do not use after June 1998," and it is August 2003, should you take the *Tylenol*? Will it simply have lost its potency and do you no good?

In other words, are drug manufacturers being honest with us when they put an expiration date on their medications?

Thomas A. M. Kramer, MD, Associate Professor of Psychiatry, University of Chicago, Chicago, Illinois, scoured the medical databases and general literature for the answer to his question about drug expiration labeling. And here are the simple facts:

First, the expiration date, required by law in the United States, beginning in 1979, specifies only the date the manufacturer guarantees the full potency and safety of the drug -- it does not mean how long the drug is actually "good" or safe to use.

Second, medical authorities uniformly say it is safe to take drugs past their expiration date. Except for possibly the rarest of exceptions, you won't get hurt and you certainly won't get killed.

Third, studies show that expired drugs may lose some of their potency over time, from as little as 5% or less to 50% or more. Even 10 years after the "expiration date," most drugs have a good deal of their original potency.

One of the largest studies ever conducted that supports the above points about "expired drug" labeling was done by the US 15 years ago. The results showed that about 90% of them were safe and effective as far as 15 years past their original expiration date.

The expiration date doesn't mean, or even suggest, that the drug will stop being effective after that, nor that it will become harmful. "Manufacturers put expiration dates on for marketing, rather than scientific, reasons," said Mr. Flaherty, a pharmacist at the FDA. "It's not profitable for them to have products on a shelf for 10 years. They want turnover."

Aspirin use may reduce the risk of prostate cancer, according to the results of a meta-analysis published in the January 12th issue of the British Journal of Cancer.

Prostate cancer is the most commonly diagnosed cancer in the United States and Canada, "and is second only to lung cancer in terms of number of deaths it causes," Dr. Salaheddin Mahmud said. "So it is very unfortunate that at the moment we do not know of any modifiable risk factors for the development of this disease."

Because none of the individual trials published on nonsteroidal anti-inflammatory drug (NSAID) use and the risk of prostate cancer reached conclusive results, Dr. Mahmud and colleagues conducted a systematic review and meta-analysis of 12 reports to examine the strength and consistency of the link between NSAID use and prostate cancer.

The use of aspirin was associated with a 30% reduction in the risk of advanced prostate cancer and a 10% reduction in total prostate cancer risk, the report indicates. The study reported a strong inverse association between aspirin use and prostate cancer risk, but only among participants that had taken aspirin for at least 4 years.

"NSAIDs (and aspirin in particular) appear to offer some protective effect against prostate cancer both in laboratory studies and in observational studies in humans," Dr. Mahmud said. "It is too early to recommend regular use of aspirin for prostate cancer prevention, but the time is right for prospective trials."

A panel of neurologists presenting data on transient ischemic attacks (TIAs) asserted that the diagnosis is misleading and can lead to the mismanagement of patients. These patients should all be considered stroke patients, they agreed. Dr. S. Claiborne Johnston of the University of California at San Francisco told attendees of the American Stroke Association's 29th International Stroke Conference that 24-hour hospitalization of TIA patients is cost-effective, since the risk of stroke during that time period is so high in these patients.

The UCSF team analyzed the incremental cost of care for 24 hours of hospitalization of TIA patients evaluated in the emergency departments of 11 San Francisco hospitals. They found that if patients were admitted, a new stroke could be identified within the first hour of onset and they could receive thrombolysis early in the therapeutic window. The result would be a minimization of sequelae and a shorter length of stay than patients sent home after resolution of TIA symptoms.

"It makes no sense to separate TIA from stroke," Dr. Mielke asserted. "TIAs and strokes are both accidents in the progression of the same disease." Drs. Adams and Johnston concurred. All three believe TIA is misleading as a diagnosis. Patients and many clinicians may be lulled into a sense of complacency when TIA symptoms disappear, the panelists said. "In fact, TIA patients have an increased risk of deterioration and poor recovery with a stroke than stroke patients," Dr. Johnston told Reuters Health.

The American Heart Association (AHA) has updated guidelines for cardiovascular disease (CVD) prevention in women. The last guidelines were issued in 1999, and this update, published in the Feb. 10 issue of *Circulation*, emphasizes an individualized approach based on cardiovascular risk. "For the first time we are giving clarity about how much we know and how much we don't know," Lori Mosca, MD, writing group chair, says in a news release. "The concept of CVD as a 'have-or-have-not' condition has been replaced with the idea that CVD develops over time and every woman is somewhere on the continuum."

After reviewing the highest-quality evidence from all the available research related to CVD prevention, the panel concluded that a standardized scoring method developed by the Framingham Heart Study should determine the aggressiveness of treatment based on 10-year risk of myocardial infarction (MI). Low risk is defined as less than 10%, intermediate risk as 10% to 20%, and high risk as greater than 20%.

For example, aspirin therapy is not recommended for low-risk women and it is recommended in all high-risk women and in those with documented cardiovascular disease. Lifestyle interventions including smoking cessation, regular physical activity, heart-healthy diet, and weight maintenance are mandated in all women to reduce existing CVD and to help prevent major risk factors from developing.

Recommendations for all high-risk women include angiotensin-converting enzyme (ACE) inhibitors, beta-blockers, and cholesterol-lowering drugs, preferably statins, even in women with low-density lipoprotein (LDL) cholesterol

levels below 100 mg/dL. Although routine statin therapy was not previously recommended in these women, recent studies have shown a benefit in this subgroup. Niacin and fibrates may be helpful in selected cases.

For stroke prevention, warfarin is recommended in women with atrial fibrillation at intermediate or high risk for embolic stroke. Aspirin may be substituted in women who cannot take warfarin, or who are at low risk of stroke. When blood pressure is greater than or equal to 140/90 mm Hg, antihypertensive agents including diuretics are indicated to maintain blood pressure at less than 130/80 mm Hg. In women with diabetes, blood sugar should be controlled to achieve near-normal glycated hemoglobin levels (less than 0.7%). Women with cardiovascular disease should be evaluated for depression and treated appropriately.

Finally, interventions which are either not useful or even harmful, include hormone therapy, antioxidant supplements, and aspirin therapy in low-risk women. However, supplementation with omega-3 fatty acids and folic acid, in addition to a heart-healthy diet, may be considered in some high-risk women.

A joint commission of the American College of Physicians and the American Academy of Family Physicians has issued six recommendations for internists and family physicians to manage patients with atrial fibrillation (AF). The new guidelines appear in the Dec. 16 issue of the *Annals of Internal Medicine*.

"The generally accepted practice has been to do everything we can to get patients back into sinus rhythm and to try to keep them there," panel cochair Michael LeFevre, MD, says in a news release. "The best available research showed that the preferred approach for most patients with AF should be to focus on control of heart rate and stroke prevention with blood thinners, rather than attempt to restore sinus rhythm. Controlling rhythm was not better than controlling rate in reducing complications and death, and the side effects of medication to keep patients in normal rhythm may be greater than the benefits."

Recent trial results supported similar outcomes with strategies for controlling ventricular rate compared with strategies for restoring sinus rhythm. Compared with placebo, evidence for stroke prevention was strong for warfarin and suggestive for aspirin. However, evidence of increased risk for major bleeding was suggestive for warfarin and inconclusive for aspirin.

These recommendations are for rate control with chronic anticoagulation for most patients, and for use of adjusted-dose warfarin for chronic anticoagulation unless stroke risk is low or there are contraindications to warfarin use. Drugs recommended for rate control are atenolol, metoprolol, diltiazem, or verapamil. Acute cardioversion may be achieved with either direct-current or pharmacologic conversion. For patients undergoing cardioversion, appropriate options include transesophageal echocardiography followed by early acute cardioversion (in the absence of intracardiac thrombus).

The American Diabetes Association (ADA) has issued the first consensus statement for the care of patients with peripheral arterial disease (PAD) and diabetes, published in the December issue of *Diabetes Care*. The new guidelines recommend that all diabetic patients older than 50 years be screened with an ankle-brachial index (ABI). Approximately one third of diabetic patients older than 50 years are thought to have PAD. Failing to detect PAD can have direct consequences, including lower limb amputations and increased five-year risk of myocardial infarction (MI) or stroke, with a mortality rate of about 33%.

Because of the poor cardiovascular and functional outcomes associated with unrecognized PAD, the consensus panel recommends screening for PAD in all diabetic patients older than 50 years, and considering screening for diabetic patients younger than 50 years if they have other risk factors such as smoking, hypertension, hypercholesterolemia, or history of diabetes for more than 10 years. Although PAD is often asymptomatic, characteristic symptoms include fatigue in the legs while walking that disappears at rest, or poor healing of sores or infections on the feet or legs.

The treatment strategy recommended by the consensus panel includes aggressive management of cardiovascular risk factors and treatment of PAD symptoms. Risk factor reduction for all diabetic patients should include smoking cessation, antiplatelet therapy, reduction of blood glucose A<sub>1c</sub> to less than 7%, and lowering blood pressure below



130/80 mm Hg and low-density lipoprotein (LDL) cholesterol below 100 mg/dL. For PAD symptoms, treatment options include exercise rehabilitation, drug therapy, and revascularization.

The World Health Organization issued guidelines for ensuring the safety and efficacy of the multi-billion dollar herbal medicines market amid reports that some products are tainted with toxic substances. The guidelines lay out the best techniques for growing and harvesting medicinal plants used for various ailments or [weight loss](#), as well as the clear labelling of the contents of any product.

Herbal medicines represent an estimated \$60 billion a year global market, some 20 percent of the overall drug market, according to the U.N. agency. Yet only China, Japan and the European Union have regulations for medicinal plants. "It is not a binding guideline for any country, but it is a model or sort of checklist which they can use to make their own national regulations," Hans Hogerzeil, acting director of WHO's essential drugs and medicines department, told a news briefing.

The U.S. Food and Drug Administration last December issued a consumer alert on the safety of dietary supplements containing ephedra. The adrenaline-like stimulant, used for [weight loss](#) or to boost sports performance, can have dangerous cardiac effects.

In Africa, up to 80 percent of the population depends on traditional medicine for primary health care. In China, herbal preparations account for up to 50 percent of total consumption. In Europe, North America and other industrialised areas, more than 50 percent report using complementary or alternative medicine at least once, according to WHO. "There is also an enormous industry now where huge amounts of leaves and traditional medicines are being shipped from various exporting countries -- China, India, Pakistan -- to many other countries. Somebody has to regulate that, at least their safety," Hogerzeil said.

## iumori samedicino Temaze

- mamakaci ekiTxeba eqims, Tu SeiZl eba, rom man 100 wl amde icocxl os.

eqimma ramdenime kiTxva dausva:

"Tu eweviT an Tu svamT?~

~ara, arasodes ar mqonia eg mavne Cvevebi.~

`Tu yomarobT, manqanas Tu atarebT giJiviT, an qal ebi Tu gitacebT?~ `arcerTi araa Cemi hobi~.

`qristiani xarT? an romel ime sxva rel igiis mimdevari da morwmune?~ `ara, arafris rwmena ar maqvs.~

eqimma Tavi moiqeqa da patients hkiTxa: `ra magis pasuxia, magram 100 wl amde sicocxl e ristvis gWirdebaT?~

- `eqimo, unda damexmaroT! raRac Zal ian ficxi var. xal xTan urTierTobisas nerviul i vxdebi...~

`kargiT, momiyeviT Tqveni probl emebis Sesaxeb.~

`am wuTSi aba ra giTxari, Se dampal o idioto!!?~

- saerTaSoriso konferenciaze amerikel i, ingl isel i da rusi eqimebi msj el oben daavadebaTa mkurnal obisas warumatebl obis SemTxvevbeze:

`ara, aRar SemiZl ia! mkurnal ob avadmyofs kibos winaaRmdeg, mkurnal ob da bol os... igi Sids-iT kvdeba!~ – ambobs amerikel i.

`mesmis rasac gul isxmobT – urTavs ingl isel i – CvenTanac egre xdeba: ggonia yviTel i cxel ebaa, aZl evs yvel afers rac saWi roa, da bol os sikvdil is mere irkveva, rom mal aria iyo...~ - umatebs ingl isel i.

`Cven ki eg probl emebi ar gvawuxebS~ – ganacxada rusma eqimma – `pacienti zustad imiT kvdeba, ris gamoc vmkurnal obT!~.

A man asked his doctor if he thought he'd live to be a hundred. The doctor asked the man, "Do you smoke or drink?"

"No," he replied, "I've never done either."

"Do you gamble, drive fast cars, and fool around with women?" inquired the doctor.

"No, I've never done any of those things either."

"Are you a Christian or some kind of a religious person?"

"No, I don't believe in anything."

"Well then," said the doctor, "what do you want to live to be a hundred for?"

Patient: Doctor, you must help me. I'm under such a lot of stress. I keep losing my temper with people.

Doctor: Tell me about your problem.

Patient: I just did, you stupid bastard!

At an international conference, an American, a Brit, and a Russian were discussing the shortcomings of their diagnoses.

"I can't stand it some time. We treat people for cancer, and then they die of AIDS".

"I know what you mean." said the Brit. "We treat them for yellow fever, and it turns out they had malaria.

Then, of course, they die".

"That is not a problem in our country" said the Russian doctor. "When we treat people for a disease, they die of \*that\* disease."

## **sasargebl o veb-gverdebi Temaze hematol ogia**

<http://www.hematology.org/>

hematol ogi is amerikul i sazogadoebis vebgverdi.

<http://www.aspho.org/>

bavSvTa hematol ogi is/onkol ogi is amerikul i sazogadoebis vebgverdi

<http://www.bloodmed.com/home/>

Seicavs masal as hematol ogi is sxvadasxva sakiTxze. saWiroa registracia. SezRudul i droiT SesaZI ebel ia ufasod sargebl oba.

<http://www.geocities.com/HotSprings/2255/blood.html>

Seicavs bmul ebi s or j gufs: hematol ogiuri saswavl o teqstebi (anemia, transfuzuri Terapi, miel oprol iferaciul i darRvevebi, hemostazi, Trombozi da a.S.) da kl inikuri SemTxvevebi.

<http://www.mic.ki.se/Diseases/C15.html>

karol inskas institutis (SvedeTi) mier momzadebul i gverdi, romel ic Seicavs mraval ricxovan bmul s sxvadasxva hematol ogiur daavadebaze.

<http://www.labexplorer.com/hematology.htm>

warmodgenil ia bmul ebi saswavl o teqstebisa da kl inikur SemTxvevebze, agreTve sxvadasxva qveynis hematol ogi is sazogadoeba-organizaciebze, am dargSi wamyvan Jurnal ebze.

<http://www.bloodline.net/links>

mocemul ia informacia pacientTaTvis, konferenciebis kal endari, bmul ebi kl inikur SemTxvevebis aRwersa da samedicino publ ikaciebze, hematol ogi is sazogadoeba-organizaciebsa da sauniversiteto kl inikebis vebgverdebze, agreTve grantebis programebze.

<http://drcobez.narod.ru/gemal.htm>

I eqciebis kursi bavSvTa hematol ogiaSi rusul enaze.

[http://www.gfmer.ch/Medical\\_journals/Hematology.htm#Guidelines](http://www.gfmer.ch/Medical_journals/Hematology.htm#Guidelines)

samedicino Jurnal ebi (bevri ufaso), wignebi da publ ikaciebi, gaidl ainebi da kl inikuri rekomendaciebi, monacemTa baza, atl asebi, organizaciebi.

<http://freebooks4doctors.com/fb/spec7.htm>

internetSi moTavsebul i hematol ogi is saxel mZRvanel oebi ingl isur da frangul enebze.

# saqarTvel os j andacvis veb-gverdis saapl ikacio forma



erovnul i sainformacio  
saswavl o centri (essc)  
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el -fosta: dmeskhi@nilc.org.ge  
interneti: www.nilc.org.ge  
www.health.net.ge

internetis veb-gverdis monacemebis forma organizaciebisatvis  
(SeiZl eba mowodebul iqnas rogorc qarTul , aseve - ingl isur enebze)

1. organizacis dasaxel eba:

2. organizacis mi samarTi :

3. tel efoni #1:

4. tel efoni #2:

5. faqsi :

6. el -fosta:

7. veg-gverdi :

8. organizacis struqtura:

9. organizacis xel -l i piris mokl e biografia:

10. organizacis mi znebi :

11. organi zaci i s proeqt ebi :

mimdinare:

**CamonaTval i da TiToeul proeqtze:**

1. dasaxel eba
2. mokl e aRweril oba (daaxl ebiT 100 sityva TiToeul proeqtze)
3. dafinansebis wyaro
4. ganxorciel ebis periodi
5. regioni , sadac mimdinareobda
6. beneficiarTa raodenoba
7. proeqtSi monawil eTa raodenoba
8. biuj eti

Sesrul ebul i:

**CamonaTval i da TiToeul proeqtze igive tipis informacia**

12. organi zaci i s gegmebi :

mokl e informacia, anda Tu proeqtis zusti monaxazi arsebobs, maSin imave formiT, rac mimdinare proeqtebzea miTiTebul i:

13. organi zaci i s mier sxva iuridiul Tu fizikur pirebTan TanamSroml obis sfero:

gasaRebi sityvebi: Keywords

organi zacia sTavazobs: (eqsperti za /servisi)

organi zacias sWirdeba: (eqsperti za /servisi)

14. organi zaci i s partni orebi :

miuTiTeT is organizaciebi, romel Tanac gindaT, rom Tqveni gverdidan iyos bmul i, mag. j andacvis saministros romel ime departamenti, romel ime saerTaSoriso organizacia (mag. damfinansebel i) da a.S.

15. organi zaci i s simbol o (l ogo):

.jpg, .gif anda romel ime sxva grafikul i fail i, sasurvel ia mcire zomis (ara Corel )

16. sakontaqto piri s monacemebi (araa aucil ebel i direqtoris, umj obesia - teqnikuri personal is monacemebi)

tel e foni  
faqsi  
el -fosta  
mobil uri tel e foni