

## AHTMTMpeoMflHbie cpeACTBa

AHTMTMpeOMAHbIMM H33blB3K)T ZlGKapCTBGHHblG CpGflCTBa, KOTOpblG CHUMOfOT  
ypOBGHb TOpMOHOB LU, MTOBMAHOM >KG/IG3bl B OpraHM3MG M riGpGBOAAT GrO  
COCTOHHMG 3y- M/1M rnnOTMp603a. C/lGayeT nOMHMTb, HTO aHTMTMpGOMAHblG  
CpGflCTBa CHMHOfoT HG TO/lbKO nOBblLUGHHblM, HO M HOpa/lbHblM ypOBGHb  
TMrGOMAHblX TOpMOHOB, (IOBTOMy MX npMMGHGHMG 6G3 HaA/ieMaiAGrO KOHTpO/lB  
MO>KGT npMBOAHTb K P33BMTMJ0 r/iy6oKOrO TMnOTMpG03a M MMKCGA6M3T03HOM KOMbl.

AHTMTMpeoHAHbie cpe^CTBa -

K/iaccM(>)MKaL^km

1. ymeiaKunne npoflyKi^MK) TTr afleHornno(t)M30M  
npenapaTbi MOfla (noflaB/iaKDinaa TepanMa)

2. YmeTaioiMMe CMHTe3 TupeonflHbix ropMOHOB 4)o/i/iMKy/iaMM m>K

TkioaMMAbi: *muoM030/i, nponu/imuoypauu/i;*

3. HapyiaioiMiie npoHMKHOBeHue nofla  
B 4>o/i/inKy/ibi m>K AHMOHHbie MHrn6nTopbi: *Ka/iun  
nepxnopam;*

4. PemreHKOHTpacTHbie cpeflCTBa: *uonaHoeecw Kucnoma;*

5. Pa3pyiaK)LMMe K/ieTKM 4>o/i/iMKy/iOB LH>K

PaMOaKTMBHblM MOfl (1131)

## npenapaTbi MOflMfIOB

TupeociaTMHeckoe ^eMCTBue cBB33HO c nepepy3KOM K/ieTOK

LU.MTOBM.fl.HOM >Ke/ie3bl MOflOM, npn KOTOpOM ero

KOHU.eHTpaU.Mfl BHyTpM

K/ieTKM npeBbiiuaeT BHeK/ieTOHHyio 6o/iee ne/vi B 1.000 pa3.

CnmaeTCB,

HTO TupeocTaTMHeckoe A^MCTBue tio^a o6yc/ioB/ieHo:

- HapyieHueM TpaHcnopia MO^MAOB B K/ieTKM LUMTOBMAHOM M<e/ie3bi;
- HapyeHneM KOH.qeHcau.MM MI/IT M flMT, a TaKwe opraHMcjwKau.MM kio^a (acfx^eKT Wolff-Chaikoff);
- HapyeHMeM npoTeo/iM3a Tnpeop/io6y/iMHa M BbicBoOoHv^eHMfl T4 M T3 M3 TK3HM >Ke/ie3bl ((J>aKTMHeCKM, MO^M^bl - eflMHCTBeHHbie cpe^cTBa, KOTopbie nepBMHHO CHMHOKDT ceKpey,MK> TMpeoMflHbix ropMOHOB >Ke/ie3OM);
- noAaB/ieHMeM peaKu,MM >Ke/ie3bi Ha TTr (no/iapa>OT, HTO MOflMflbi HapyiaKDT pa6oiy u,AMO M B pe3y/ibTaTe CMTHa/i OT peu,enTopoB TTr He nepe^aeTCB Ha acJxfceKTopHbie CMCTe/vibi).

## npenapaTbi MOAMAOB - <J>apMaKo/iornMeckKne a(t><t>eKTbi

1. B Ma/ibix A03ax (/v\eHee 1,5 Mr/cyi) Mo^n/ibi CTMMы/inpyK)T CMHTe3 rop/vioHOB LLIJMTOBМ/^HOJI >KG/ie30M, oco6eHHo y nau,neHTOB c runo-M ayTMpeOMAHbIMM COCTOfIHMflMM.
2. B AOBax 6o/iee 6 Mr/cyT npoaB/iaeTCfl TupeocTaTMHeCKMM 3(J)ct)eKT. Hana/io ^eMCTBHfl OTMenaеTCfl B TeneHMe 1-2 cyTOK. K 5-7 cyTKaM 3c()(t)eKT AOCTMraeT MaKcn/v\y/v\a: CHMwaeTCfl ceKpey,MB м CMHTe3 TupeouAHbix ropMOHOB, yMeHбуuaeTCfl Backy/iflpM3au,Mfl >Ke/ie3bi, ee pa3Mepbi. TKaHM >Ke/ie3bi CT3HOBTCH MeHee HyBCTBMTe/ibHbi к MexaHMHeCKMM B03AeMCTBMflM.

## нрeнaпaTbi MOAMAOB - (JjapMaKo/iornMecKkie

### 3(|>(t>eKTbl

- ТнрeocTaTMHeCKMM 9<t><J>eKT HenpoAO/imme/ieH. Ko 2-8 He^e/ie Ha6/iK)AaeTc« c()eHO/v\eh «oTKa3a ИH,MTOBMAHOH >ne/ie3bi», Kor^a ee TKaHb nepecraeT OTBenaTb Ha TepaHMKD BbicoKMMM A03aMM MOfla м rннepTнpeoHAHoe cocpofIHMe B03HMKaeT BHOBB, Macro B 6o/iee Tfl>Ke/10M c{)Op/V\e. ripMHMHa yCKO/lb3aHMB >Ke/ie3bl MS-nOA fleMCTBMJR MO^M/JOB HeaHa. llo/iaraioT, BTO cBA3aHO c TeM, HTO B K/ieTKax M<e/ie3bi npeKpaмаeTca CMHTe3 MO^Hbix TpaHcнopieroB м TpaHcнopT Mo^a B K/ieTKy ocpaHaB/iMBaeTca. B MTore, KOHU,eHTpaU,MOHHblM TpaAHeHT MOAMAOB BHyTpH M BHe K/ieTKM CHMmaeTCB M CMHTe3 ropMOHOB B0306H0B/lBeTCfl.
- C/ie^yeT noMHMTb, HTO нрeнaпaTbi MOAM^OB чyMOJOТ CKopocTb nor/ioLii.eHMB LU^MTOBMAHOH >Ke/ie30M pa/^MoaKTMBHOTO Mo/^a, noaTOMy мх Mcно/ib3yKDT MHop/i.a нpoc{)M/iaKTMHeCKM Rnn 3aLU,MTbi TK3HM >Ke/ie3bl OT pa/JMai^MOHHOpO нOBpe^eHMfl.

## npenapaTbi MOAMAOb - npwv»eHeHne

A. Ma/ibie AOBW. ripuMeHAfOT BOcno/iHeHMfl Ae<J>noma MOfla npn /leneHHM 9HAeMMHeCKoro 3o6a. Bocno/iHeHne MOAHoro Ae<t>MAma AO^I>KHO CTporo cooTBeTCTBoeaiD cyTOHHbiM HopMaM noTpe6/ieHMfl MOAa. B 1996 r. B03 yTBepAM/ia Hopr/ibi noTpe6/ieHMfl MOAS, AeMCTByromne u B HacTOfliu.ee BpeMfl.

CyTOHHaa noTpe6HOCTb B MOAMA^X M ee BoccTaHOB/ieHne Ka/iMfl MOAHAOM

ТрyAHbie A <sup>e</sup> TM	СyTOMHafл noTpe6HOCTb, /vinr	Ka/iMfl MOAHA 100 MKr
ТрyAHbie A <sup>e</sup> TM	50	Yz Ta6/ieTKM
Aem 2-6 /ieT	90	1 Ta6/ieTKa
AeTM 7-12 /ieT	120	1 Ta6/ieTKa
B3poc/ibie	150	1 Vz Ta6/ieTKM
BepeMeHHbie	200	2 Ta6/ieTKM

## ripenapaTbi MOAMAOB - npMM6H6HM6

B. BoTibWMe A03bi. npuMeHAfOT no/iyneHUfl Obicrporo, Ho KpaTKOBpeMeHHoro TMpeocTaTMHeckoro acJxfceKTa ripn c/ieAytoiu, Mx CMTyau.Mflx:

- npeAonepau, MOHHafI noApoTOBKa nau, neHTOB K xnyprnHeckOMy /leneHMio AM(j)(t)y3Horo TOKCMHeckoro 3o6a M/IM TOKCMHGCKOM aAeHOMbi LU, MTOBMAHOM >Ke/ie3bi. Ha3HaHeHMeM MOAMAOB xnypru AoOMBaKrrca yMeHbiiieHMR Backy/iflpM3au, MM *mene3b*\, CHMweHMH ee HyBCTBMTe/ibHOCTM K MexaHMHeckMM B03AGMCTBMAM. T.e. Takoe zieneHMe o6ecneHMBaeT CHMweHMe pMCKa KpOBOTeHGHMfl BO BpeMfl OnepaiJMM, P33BMTMA TMpeOTOKCMHeCKOrO KpM3a, BC/ieACTBMe Bbl6pOCa ropMOHOB M3 TpaBMMpOBaHHOM >Ke/ie3bl. 06blHHO npMMeHHHT pacTBop /IK>ro/ifl, KOTopbiM Ha3HanaK)T 3a 7-10 AneM ao onepau, MM no 5 Kane/ib 2-3 pa3a B A^Hb.
- OKa3aHMe HeOT/IOWHOM HOMOUi, M npMTMpeOTOKCMHeCKOM KpM3e. BBOAfT BHyTpMBGHHO 10% pacTBop MOAMA^ HaTpMfl no 10 M/l Ka>KAbie 8 HaCOB, /IM6o pacTBop/lraro/ifl no 8-10 Kane/ib Ka>KAbie 6 nacoB BHyTpb.

## нpenapaTbi MOAMAOB - Heme/iaTe/ibHbie

### 3<t><t>eKTbi

1. Odpbie peaKUMM - B03HMKaK>T nepe3 HeckO/ibKO MMHyT noc/ie BBeAeHMfl MOAMAOB M CBfl3aHbl C MHAMBMAya/lbHOM HenepHOCTMMOCTbK) MOAa. npOJRB/lflKDTCl OTeKOM ry6, BeK, ropiaHM (Bn/ioTb AO ac<J)MKCMM). B -rawe/ibix c/iyna^x BO3MO>KHO noBbiiueHMe TeMnepaTypbi, /IMM^aAeHonaTMfl, yBe/imneHne ypoBHfl 303MHO4>M/IOB B KpoBM, TpoM6oAmoneHMHeCKafl nypupa.
2. XpoHneckaa nepeA03npobKa MOAS (MOAM3M). IlepBbiMM CMMnTOMaMM MOAH3M3 flB/iflK)TCfl noaB/ieHMe HenpMflTHopo MeTa/i/iMHeCKopo BKyca BO piy, >KM<eHMfl B rop/ie M BO piy, noBbiiueHHOM HyBCTBme/ibHocTM 3yboB M AeceH K nepenaAaM TeMnepaiyp. OTMenaTCfl noBbiiueHHoe c/iK)HOOTAe/ieHMe. 3aieM noflB/iflK>Tca npM3HaKM, HanoMMHaKDiAne npocyAHoe 3a6o/ieBaHMe: HMxaHMe, Kaiue/lb C BblAe/ieHkieM C/1M3MCTOM MOKpOTbl, KOH-bJOHKTMbMT M npMnyX/IOCTb BeK. BecbMa xapaKrepHbiM flB/iaeTCfl OTeK, yBe/inneHne M 6o/ie3HeHHOCTb OKO/ioyiuHbix M noAHe/iHDCTHbix cyfOHbix M<e/ie3. Ha6/iKDAaHDTCl KOWHbie nopaweHMfl B BMAe ce6open, acne M pa3/iMHHbix cbineM. Co CTopoHbi >KKT Macro OTMenaTCH pa3BMThe Anapen.
3. MoAMAbi He/ib3fl npMMeHATb y бepeMeHHbix, т.к. oHM npoHMKaTOT nepe3 reMaTon/iameHTapHbm бapбep M MoryT Bbi3BaTb pa3BMThe 3o6a y peбeHka.



## TnaMa30/i

OTHOCMTcfl K npOM3BOAHblM TMOMOHеBMHbl.

*MexaHU3M deucmeun.* no/iaratoT, HTO Tna/v\а30/i HapywaeT npou, ecc  
oprahM(j)MKaLJ<sub>1</sub>MM Mo/^a M KOHAeHcau, m/i MOATKPO3MHOB B Ko/i/ion.o.e.  
lloc/ie BBe/jeHUfl B oprahM3M Tnaiv\а30/i 3axBaTbiBaeTca TKai-mMM  
LAHTOBMAHOM >Ke/ie3bi M CBfl3biBaeTCfl c reMOM nepoKCMAa3bi,  
CTa6n/iM3npyfl ero B OKHC/ieHHOM COCTOAHHM. Ilpn CTOM MOflnepoKCMAasa  
repaeT cnoco6Hocrb BocciaHaB/iMBaTb MOAMAbi M BK/IKDHaTb MOfl B  
OCTaTKM TMp03MHa.

Kpoivie Toro, noA B/iMflHMeM Tna/v\а30/ia HapyiuaeTca o6-beAHHehme  
MOHOMOATMP03MHOB M AHM0ATMP03MHOB B MO/ieKy/lbl T3 M T4.  
3TOT 3cJ>(t>eKT npoaB/iaeTCfl B A03ax 3HaHMTe/ibHO MeHbwi/ix, neM Te,  
HTO noA, aB/iflK)T aKTMBHocTb MOAnepoKCMAa3bi. TaKMM o6pa30M, noA  
B/iMflHkieM TMa/V\а30/ia CMHTe3 HOBbix TMpeOMAHbix ropMOHOB  
npeKpaLU, aeTCfl. OAHaKO, BbiAe/ieHne ropMOHOB M3 >Ke/ie3bi i  
npOAO/iwaeTCH ao Tex nop, noKa coxpаHflioTCfl 3anacbi paHee

TnaMa30/i - <t>ap/v»aKo/iorkmeckMe acj)<|)eKTbi

TnaMa30/i OKa3biBaeTTMpeocTaTMHeckoe ^eMCTBue. CHM>KaeT

ypoBeHb TupeoMAHbix TOPMOHOB M nepeBOflMT napneHTa c  
rnnepTnpeo30M B ayTupeoMAHoe cocTOBHue.

Tna/v\30/i OKa3biBaeT c/ia6oe mvuv\yHOMOAy/inpyioij,ee  
fleMCTBue - OH CHMWaeT H36blTOMHO nOBbllLieHHyK)

(J)yHKLI,HK) Th- /IHM(j)OU<sub>1</sub> MTOB M nOBbllUaeT

M36blTOMHO CHkDKeHHytO (j)yHKU,MK)

Ts-/IMM(t)OpHTOB y 6o/lbHblX AM(J)(J)y3Hbl/V\

TOKCMHeCKMM 3060M.

## Тна/v\а30/i - ноКа3аНН«

КоНсерBaТМВHoe/leneHne ТнpeoТOKCMK03a м B03Bpauj,eHMfl nau,neHTa к  
ayTMpeoM.a.HOMy cOCTOAHMK). Cmn^poM ТнpeoТOKCMK03a B03HMKaeT, KaK npaBM/io,  
ripn c/ie\_4yK>w,Mx cocTOflHkmx:

- */Jucpcpy3Hbiu moKcунecKuu зoб (6o/ie3Hb ppeueca) - aтo aγтoυMMγHHoe зoбo/ieeoHue  
нpy KomopoM e op2aHU3Me ebipaбambieaiomcfi oHmumena к penenmopaM TTr Ha  
noeepxHocтu uu,umoeudHou menezbi. Ilo ceoeu cтpыKтype aтu aHmumypeoudHbie  
aHmumena HanoMUHaioM aKтueHbiu u,eHmp TTr u нpy C6H3bieaHuu c pey,enmopaMU  
mene3bi eo3deuctmeytom Ha nee nododHO eopMOHy 2unocf)U3a - oHy cтuN\γнpy\om poem  
cpo/i/iuKy/ioe, cuHme3 u cexpenuio T3 u T4, yeenuneHue pa3Mepoe >Ke/ie3bi. BecbMa  
xapaKтepHUM нpy3HaxoM бone3HU ppeueca noMUMo мupeomoKcuK03a nennemcn  
ocf)ma/ibMonamun. Ocpma/ibMonamun cabana c meM, nmo aHmumypeoudHbie aHmumena  
enumom Ha pei^enmopbi, pacно/ioyKeHHbie e mxaHu 2/ia3odeu2ame/ibHbix Mbiuiu, u  
penpooрбyта/ibHOu K/iemnamKU (мupoean mnaHb, ebicmu/i a toucan dHO 2na3Huu,bi). Hod  
enunHueM amux aHmume/i HавuHaemca cuHme3 2/iuK03aMUH02/iuKaH08 u pbixnou  
coeduHumenbHou mKOHU, Komopbie nezKo ydepynueaiom eody u nocmeneHHO  
ebima/iKueaiom 2/ia3Hoe B6/юko - noaenaemcn nyve2/ia3ue, oтen u npunyxnocтb eex.*

## Tna/via30/i - noKa3aHnn

KoHcepBaTMBHoe zieneHne TnpeoTOKCMK03a м B03BpameHMfl nau,neHTa к  
ayTMpeOM.fl.HOMy COCTOfIHMK). CmH/^pOM TMpeOTOKCMK03a B03HMKaeT,  
KaK

npaBM/io, npM c/ie<sub>1</sub>QyK>Lu<sub>1</sub>Mx COCTOAHMAX:

- *ToKcimeckCM adeHOMa mumoeudHou )Ke/ie3bi (y3/ioeou moKcunecKuu 3o6). Brno 3o6oneeoHue, npu KomopoM e mKctHHx m:e/ie3bi noaennemcn epynna 6btcmpopacmym,ux xnemox (y3en), xomopan nocmoHHHo ebipadambieaem T3 u T4 u He nodHUAaemca KOHmpo/iK) co cmopoHbi TTT eunocpU3a. T.e. He 3aeucuM0 om moeo, ecmb u/iu Hem TTr K/iemnu y3/ia nocmoRHHO cexpemupy- tom e npoeb mupeoudHbie eopMOHbi. OчHoeHoe om/iuHue moncuHeckou adeHOMbi om 6one3nu Tpeueca 30K/itoHaemчH e moM, nmo npu adeHOMe yee/iunueaemcn He ecn Me/ie3a, o mo/ibKO KaKan-nu6o ee nacmb. Kpo/we moeo, npu odeHOMe ui,umoeudHou mene3bi He Ho6/itodaemcn mupeomoKcune- cKou ocprma/ibMonamuu.*

## Tna/via30/i - noKa3aHkin

TnaMa30/i npMHnr/\aK)TTaK>Ke no cneu.ua/ibHbiM noKa3aHHAM:

- /V<sup>1\*</sup> nO^rOTOBKM naU,MeHTOB C flH(t>( |>y3HblM TOKCHHeCKHM 3o6oM H/ИH y3/ioBbiM 3o6oM к xныprnHeckOMy zieneHHK). fle/io B TOM, HTO MexaHMHeckoe B03/3.eMCTBMe Ha >Ke/ie3y B npou,ecce onepau,HH MoweT npMBeCTM K KO/IOCCa/lbHOMy Bbl6pOCy mpMOHOB H Bbl3BaTb TMpeOTOKCMHeckMM KpM3. IloaTOMy B npoLjecce noApoTOBKM к onepau.nn nau,HeHTaM Ha3HaHarc>T THaMa30/i B TeneHHe 6 He^e/ib flo onepau,HH ^.ocTHHceHH^ ayTHpeoH^Horo coCTOAHHA.
- fl/lfl OKa3aHHfl HeOT/IO>KHOH nOMOLU^M naU,HeHTy CTHpeOTOKCHHeCKHM KpH3OM. TnaMa30/i He *nsnneTCft* npn 3TOM cpe^cTBOM Bbi6opa, Ho MoweT npHMeH^TbCH npn OTcyTCTBHИ npoH/iTHoypau,H/ia. BBOAAT THaMa30/i BHyipb no 40-60 Mr Kaw^bie 8 nacoB. Ec/ИH nau,HeHT HaxoAHTCH B KOMe MO>KHO npнбemyTb к peKTa/ibHOMy BBe^eHH\o H/ИH BBefleHHK) nepe3 Ha3opacTpa/ibHbiH 3qH/v

## Tnan/ia30/i - no6oHHbie 3<t><t>eKTbi

Ko>KHbie BbicbinaHMfl MHor^a conpoBOKAaioLAMecfl /IMxopaAKOM,  
BacKy/imaMM, apipa/irMRMM, /IM/vu^aAeHonaTMRMM.

Xo/iecTaTMHeCKa^ H<e/iTyxa, renaTMT, Hecf)pMT.

rMnOTMpeOM^Hbie COCTOHHMR (Bn/IOTb ftO KOMbl).

3o6oreHHbm 3(j)(t)eKT. IlpM /leneHMM TMa- Ma30/io/v\, HecMOTpa Ha  
AocTMweHMe 3yTnpeoM,qHoro coctorHMR, o6-beM LU,MTOBMAHOM >Ke/ie3bi  
npo^o/iMoeT yse/iMHHBaTbCR. 9TO CBR33HO C Te/v\, HTO noA B/iMRHneiv\  
Tna/v\ a30/ia B M<e/ie3e npeKpaLu,aeTCR cMHTe3 TMpeoMAHbix ropMOHOB,  
M, KaK C/ieACTBMe CHMWeHMfl MX ypOBHfl B KpOBH, B rMnO(f)M3e  
HaHMHaecTcfl MHTeHCMBHbIM CMHTe3 M CeKpeU,MR TTr. noA B/IMRHMeM  
TTr npOMCXOAMT POCT c()0/I/IMKy/10B >Ke/ie3bl, pa3BMTMe B HGM  
COCyAOB M COeAMHMe/IbHOM TKaHM. noAaB/ieHMR 3o6oreHHoro ac^eKTa  
TMaMa30/ia noc/ie A^CTM>KeHMR ayTMpeo3a nau,MeHTy Ha3HanaK)T  
Ma/ibie A°3bi zieBOTMpoKCMHa. OHM He cnoco0Hbi Bbi3BaTb rMnepTMpeo3,  
HO AOdaTOHHbi noAaB/ieHMR CMHTe3a TTr B rMnocJ)M3e.

## TnaMa30/i - no6oMHbie 3<t><}>eKTbi

ToKcunecKUM arpaHy/iou,MT03. floA B/in^Hne/v\ TnaM23o/ia MoweT HapywaTbCfl /ieMKono33 y 1 nau,neHTa M3 Kaw^bix 500- 1.000. flaHHoe oc/io>KHeHMe Han6o/iee Macro B03HMKaeT y no>KM/ibix nau,neHTOB, npMHMMaKDLu,MX Tna/via30/i B R03e 6o/iee 40 Mr/cyT. ArpaHy/iou,MT03 oOpaTMM M nпу oTMeHe TnaMa3o/ia KpoBeTBopeHMe BHOBb B03o6HOB/ifleTC^ . Te/v\ He MeHee, HecBoeBpeMeHHO AMarHOCTMpoBaHHbiM arpaHy/iou,mo3 Mom npMBecTM K Tflwe/ibiM MH4)eKU,MOHHbiM oc/io>KHeHMflM. IlpM /leneHMH TnaMa30/ia peKOMeHAyKDT KOHTpo/inpoBaTb nepncj)epMHeckyK) KpoBb 1-2 pa3a B Mecflu,.

Tna/v\30/i Bbi3biBaeT nepекpecTHyK) ceHCM6n/iM3au,MK) K .qpyrMM TMOaMMAaM. no3TOMy y nau,neHTOB c a/1/ieprnMecKHMM peaKU,nflMM Ha TMa/v\3Q/i npMMeHeHMe nponn/iTMoypau,M/ia npoTMBonoKa3aHO.

nporm/iTMoypaLjM/i

fIB/lfleTCfl npOM3BOAHblM TMOMOHеBUHbl.

MexaHM3M fleMCTBHA. I1oAo6HO TMa/v\а30/iy my 6/iOKMpyeT npou,ecc

opraHucJjMKapMM flo^a, KOHfleHcapuM MI/IT M flI/IT. B TO >ne caMoe

Bpe/v\а my HapywaGT pa6oiy f\ev\ - o,qa3 nepn(j)epMHGCKMx TIOHGM M

npGAOTBpamaGT npou,6CC nGpM(j)GpMMGCKOM KOHBGpCMM T4 B T3.

riOSTOMy riTY OC/ia6/iaGT B/IMflHMG TMGpOMflHblX TOpMOHOB Ha

K/IGTKH-  
MMLUGH

M.



## nponn/iTMoypaij^M/1 - noKa3aHkm

nponn/iTMoypau,n/i npMMeHHK)T A/ИH /leneHna

TkipeOTOKCMHeCKHX COCTOBHMM nOAO6IHO TkiaMa30/iy.

my cnmaeTCa cpeACTBOM Bbi6opa npn KOHcepBaTWBHofi

Tepannn TnpeOTOKCHKO3a y 6epeMeHHbix. riocKO/ibKy Tnaiv»

a30/i zierKO npoHMKaer nepe3 reMaion/iau,eHTapHbm 6apber

ero npn/v\eHeHne bo Bpe/wa 6epeMeHHOCTM MOweT

npHBecTM к BHyTpnTpo6HOiv\y noBpe>KAei-mio LU,MTOBMAHOM

>ne/ie3bi n/iOAA n pa3BMTMK) BPOKAGHHOTO rnnoTnpeo3a.

Bc/ieACTBne BbicoKoro CBa3biBaHna c 6e/waMM KPOBM, nTY

rmoxo npoHMKaGT Hepe3 n/iau,eHTy M B MO/IOKO (v\aiern M

noaTOMy oTHocme/ibHO 6e3onaceH A-na npmv\eHeHMH y

6epe/v\eHHbix.

## nponn/iTnoypanM/1 - noKa3aHkm

nponn/iTMoypau,n/i npMMei-iafOT A/ИH /leneHna

TkipeOTOKCMMeCKkIX COCT051HMM noAo6IHo TMaMa30yiy.

my cnmaeTCa cpeflCTBOM Bbi6opa npn KOHcepBaTUBHofi

Tepannn TnpeoTQKCHK03a y 6epeMeHHbix. nocKO/ibKy

Tnaivia30/i zierKO npoHMKaeT nepe3 reMaion/iau,eHTapHbiM

Gapber ero npn/vieHeHne во BpewH Gepe/vieHHOCTM

iviomeT npHBeCTM K BHyTpkuyTpo6HOMy noBpeMKfleHMK)

LU,MTOBM,Z],HOM

>ne/ie3bi n/iOAa m pa3BmnK) Bpo>KAeHHoro rnnoTnpeo3a.

Bc/ie/i,CTBMe BbicoKoro CBa3biBaHna c 6e/iKamm KpoBn, my

n/ioxo npoHMKaeT nepe3 n/iau,eHTy m B mo/юko Maiepn m

noaioiviy oTHOcmе/ibHo 6e3onaceH *f\ila* npMMeHeHMa y

6epe/v\eHHbix.

nponM/iTMoypau^M/i -  
noi<a3aHMfl

TupeoTOKCMHeckMMM Kpn3. B/iaroflapa cnoco6HOCTM

6/iOKnpoBaTb nepn(|)epMHeckYK) KOHBepcHk) TMpOKCMHa

my CHUTaeTCB CpeflCTBOM Bbl6opa A/lfl

npoBefleHUfl Tupeo- CTaTuneckOM TeparmM во BpeMA Kpn3a.

Ero c/ieflyeT npeAnonepb BBe^eHUK) TnaMa30/ia.

npnn/iTnoypaun/1 - Heme/iaTesibHbie a<t><t>eKTbi

my xapaKTepHbi Te we Hewe/iaie/ibHbie acJx^eKTbi, HTO M  
npM Mcno/ib30BaHMn Tna/via30/ia.

## МНrn6mopbi ТpaHcнopia MOAMAOB B L14>K

HeKOTopbie MOHOBa/ieHTHbie MOHbi, ruflpaTHaa (J)opivia

KOTopbix no CBoeMy AnaMeipy noA, o6Ha ruApaTHOM

(jjopMe MOAMAA, MoryT CBfBbiBaTb aKTMBHbie U, eHTpbl

ТpaHCнOpTepOB mmOBMflHOM >ne/ie3bi i/i HapywaTb

ТpaHcнopT MO^a M3 KPOBM B anme/ikiM M<e/ie3bi.

HeAociaTOK Mo^a B TKahm >ne/ie3bi B/ieneT 3a co6ofi

CHMH<ei-me CMme3a T4 M T3.

MoflHbm ТpaHcнopier 6/iOKkipyHDT HmpaTbi,

TkioUjUaHaTbi M nepx/iopaTbi, npuneM aKTMBHocTb

nepx/iopaTOB ca/viaa BbicoKaa: = *1:30:300*.

## МНрн6мopби ТpaHcнopия MOAMAOB B m>K

PaHee MHrM6mopби ТpaHcнopия MOAMAOB B >Ke/ie3y ujMpoKo npnMeHfl/iMCb B K/iMHueckOM npa'MKe npM /leneHMM рннеpTнpeo3a. B Hacpoфlinee BpeMfl, B cBA3M C Cepbe3HblMM He>Ke/iaTe/lbHblMM a^eKTaMM, KOTOpbie OHM Bbl3blBaK)T, 9TM cpeACTBa npaKTMHeckM He Mcнo/ib3yK>TCfl:

- HMTpaTbi - BC/ieACTBMe c/ia6opo aGMCTBMA Tpe6ytoT BBeAeHMfl BbCOKMx A03, KOTOpbie conpOBOH<AaK)TCfl pe3KMM наAeHMeM aпiepMa/ibHopo Aae/ieHMa, MeTpeMomo- 6MHeMMeM.
- TMOU, MaHaTbl - OK33blBaK)T He^pO-, HeMpO- M reнаTOTOKCMHeCKOe aGMCTBMe.
- nepx/iopaTbi - наCTo Bbl3blBaK)T Tfl>Ke/ibie Heo6paTMMbie an/iaCTMHecKyK) aHeMMK) M aрpaHy/i0AMT03. HaM6o/iee Macro aHeMMfl pa3BMBAeTca npM Mcнo/ib30BaHMM BbicoKMx A03 (6o/iee 2,0-3,0 r/cyi). OAHaKO, c/ieAyeT o'MeTMTb, HTO B noc/ieAHMe HeckO/ibKO nej MHTepec K npMMeHeHMfo nepx/iopaTOB BO3o6HOBM/ICM. HM3KMe A03bi nepx/iopaia Ka/iMM (750 Mr/cyT) peKOMeHAyfOT npMHMMaTb A^ifl zieneHMfl рMнеpTMpeo3a, o6yc/ioB/ieHHopo  
npMeMOM MOACOAep>KaiAepo aHTMapMTMMHeckopo cpeACTBa aMMOAapoHa.

## klonaHOBaa xnc/iOTa

PeHTreHKOHTpacTHoe cpeACTBo, coAepwm 333 Mr

3/ieMeHTapHoro fioAa B 1 Ta6/ieTKe. MexaHM3M

fleMCTBMB. no/iaraKDT, HTO

MonaHOBaa Kuc/ioia noflaB/iBeT aKTMBHOCTb

AeMOfla3 nepncj)epMHeCKMx TKaHePi M

HaryyaeT TeM caMbiM KOHBepcHK) T4 B T3.

KpoMe TOTO,

B03M0>KH0 3a CHET BbICBo6oH<AeHMfl MOAS H3

MO/ieKy/i MonaHOBOM KMC/iOTbi, noAaB/iaeTCfl

CeKpeU, MH TkipeOMAHblX mpMOHOB LU, MTOBMAHOM

H<e/ie3ofi.

## MonaHOBaa Knc/iOTa

OapivtaKO^omHeckMe 3<JxJ)eKTbi:

1. noflaB/iaeT KOHBepcнK) T4 B T3 B TKaHax neneHn, nonex, rnnocj)M3a м HepBHOM cucTeMbi B pe3yyибTaie aepo, oc/ia6/iaeTca B03fleMCTBne T3 Ha перемопbi cTHX TKaHePi. 1/IHTepecHO, HTO B OT/iMHkie OT APyUX HOAHAOB PionaHOBaa KMC/ioia He HapyLuaeи 3axBaT MOfla LU,MTOBMAHOM a<e;ie3oPi H noaTOMy MOweT nпуMeHaTbca Ha (J)OHe /leaeHkia paAMOaKTMBHbIM MOAOM.
2. 3aAep>KMBaeT peHTpeHOBCKoe M3/iyneHne м обеснеHHBaeи KOHTpacTMпоBaHMe iv\arKMx TKaHePi.



## MonaHOBaа Kuc/iota - nрmvieHeHMe

- /leneHne rMnepTMpeoMAHbix <sup>KJ</sup>coCTOAHHM. klonaHOByK)  
KMC/iOTy nрMMeH^KDT, KaK npaBM/io, B AByx c/iynaflx - nрn  
HeepeHOCTMMOCTM TMOaMUfIOB, /IM6o KaK  
BcnoMoraie^bHoe cpeACTBO nрn /leneHMM  
TMpeOTOKCMHGCKOrO KpM3a.
- npoBefleHMe peHTpeHKOHTpacTHOM xo/ierpacJ)MM.

## PaAMoaKTMBHbIM MOfl

MoA MMeeT CTa6n/ibHbm M30Ton I 127, a TaKwe

4 paAnoaKTMBHbix M30Tona:

- I 131 - nepnoA no/iypacnaAa 8 A^en;
- I 123 - nepnoA no/iypacnaAa 13 nacoB;
- I 125 - nepnoA no/iypacnaAa 60 AHen;
- I 132 - nepnoA no/iypacnaAa 2 naca.

## PaflMOaKTMBHbIM MOfl

C TepaneBTMHeckMMM u,e/ifiMM name Bcero ncno/ib3yKDT I 131,  
M3/iyHeHne KOToporo Ha 90% npeAcraB/ieHO 6eTa-HacTnu,aMM H Ha 10%  
ra/viMa-ziynaMM. ripi/i BBe^eHMM B opraHM3M I 131 ObicTpo npoHMKaET B  
TKaHb >Ke/ie3bi M aKKyMy/inpyeTC^ B c()o/i/iMKy/iax. IlocKO/ibKy  
npoHMKaK)Lii,afl cnocoHOCTb OeTa-nacTMU, Bcero 0,5-2 MM, TO noA MX  
B/iMflHMeM npoMCXOAM noBpewAeHMe MCK/noHme/ibHO TKaHePi >Ke/ie3bi,  
OKpy>KaKDLii,Me >Ke/ie3y K/ieTKM (HanpMMep, napaiy.MTOBM/i.Hbie  
>Ke/ie3bi) ocTaKDTcfl HenoBpe^eHHbiMM.

5eTa-HacTMU,bl Bbl3blBaKDT nMKH03 «A<sup>eP</sup> M HeKp03 K/ieTOK (f)0/I/IMKy/10B LUJHTOБHAHOM  
>Ke/ie3bi C noc/ieAytoLAMM 3aMeLu,eHMeM ee TK3HM 4>n6po3HbiM py6y,OM. B pe3y/ibTaie  
KO/iMHecTBO >Ke/ie3MCTbix K/ieTOK yMeHbiuaeTCfl M CMHTe3 ropMOHOB oc/ia6eBaeT. BcJxJjeKT  
paAHOaKTMBHopo Mo^a pa3BMBaeTCfl Me/yieHHO M npoaB/iaeTCfl/inwb nepex 1 Mecay, noc/ie  
BBeAeHMfl, AOCTMraa MaKCMMyMa K 3-My Mecmj,y.

## PaflMOaKTMBHbIM MOfl - He>Ke/iaTe/lbHbie 3(t>())eKTbl

B03MO>KHO pa3BMTMe OCTpbIX peaKU,MM Ha MOA y /IMU, c  
rnnepHyBCTBme/ibHOCTbK).

Pa3BMTne /ieMK03a м paKa KO/iopeKTa/ibHOM 30Hbi. B noc/ieAHee  
BpeMfl neTKo noKa3aHO, HTO zieneHMe paAnoakTMBHbIM MOAOM He  
nOBblLUaeT PУCK pa3BMTMfl 3TMX COCTOfIHkIf.

Pa3BMTne rnnoTnneo3a. B nepBbin poA noc/ie npoBeAeHHoro zieneHHfl  
rnnoTnneo3 pa3BMBaeTCfl y 6-15% nau,neHTOB, a B nocjieAyKDLii,eM euj,e  
y 2-3% nau,neHTOB e>KeroAHO.

PaAnoMOATEparma npoTMBonoKa3aHa ripn 6epeMeHHOCTM, T.K. I 131 MO>KeT  
3axBaTbiBaTbc« >Ke/ie30M n/ioAa м npMBOAHTb K ee BHyipnyTpo6HOMy  
noBpe>t<AeHMK).

**IlpenapaTbi ropMOHOB**

**noA>ne/iyAOHHOM**

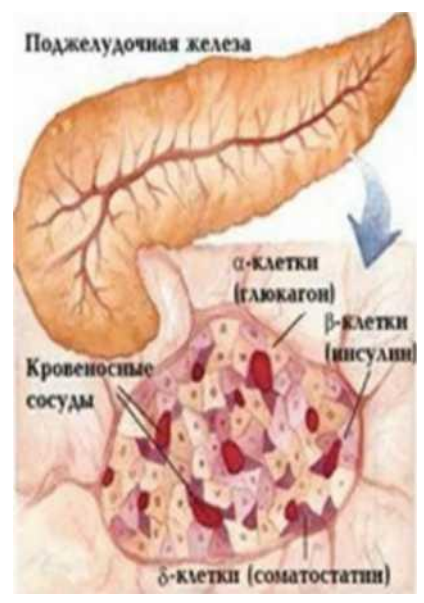
**x<esie3bi**

# дHfлOKpMHHan nacTb nojpKenyflOHHOH Mene3bi

noflJKe/iyflOHHafl «ene3a pacnono)KeHa 3a6pioiunHHc. SHfлOKpMHHafl nacTb npeflCTas/ieHa ocipoBKaMn JlaHrepraHca-Co6oneBa. KOTopbie pacnonoweHbi npeMMыeCTBeHHO в o6/iacTH ee xBoaa - KOMnaicmbie K/ieTOHHbie pыHy, ouiMHafomuecfl 6onee CBemoM OKpacKOM no cpaBHeмиK) с основным

ОсТрoвKOBoM aппapaT наpaHxMиpOM noпyкeHyflOHOM >xene3bi BK/iKuaeT:

K.ICTKII	OyilKIIIIII
U-K.ICTKII	
no nepinjiqHni	KJpaoiwBawT raox-aim noBumajomnfi \poBera> сахара (rmixoreH-* nuowna)
P-K.ICTKII	BwpaoaraBaioT iracymm. noHmaiomiifi ypoem сахара (nnotroia -rmiKoreH)
ncurpanbHa n to	
OK.ICTKII	BupaoniBatoT coMaiocTanm (cmicpmci imcynnHa)
A-K.ICTKH	BupaoaraBaioB BawnHTccTiman.iuji'i nerma yciuiKBaKMiuin nuenemie naH*peaTii'iec»>ro coxa
PP-meikii	Bupaoarubawr naHKpeanwecBie no.ninaniu. yMCHunaioimie BwpaooiK) naHKpeani'ieckoro coxa



# HmoKaroH

flo/iMnenTM^Hbrn ropMOH - 29 a/v\MHOKnc/ioT.

**HmoKaroH** OTHOCMTCA K runep/iMKeMUHeCKMM c^aKTopaM, Bbi3biBaeT yBe/iMHeHne r/iK)K03bi B KPOBM, maBHbiM o6pa3o/v\ 3a cneT pacna^a r/iMKoreHa B neneHM.

OpraHaMn wmueHfIMM aB/iaeTCB neneHb, MMOKap#, >Knpobaa TKaHb.

BMOCMHTe3 r/iKDKaroHa Kompo/ii/ipyeTCfl ypoBHeM r/iK)K03bi no npnHU.Mny o6paTHon cBA3H. Ha CMHTe3 r/iKDKaroHa OKa3biBaeT B/IMflHMe MHCy/lkIH, MHCy/IMHOnOAO6HbIM 4>aKTOp pocia.

CeKpeu, Ma ymeTaeTcn npne/vioM nmu.M - noBbiweHneM KOHU.eHTpaU.MM f/lh0K03bl, aMMHOKMC/IOT, WMpHbIX KMC/IOT.

## nmoxaroH

- MexaHkOM fleMCTBua aAeHM/iaTL],MK/ia3HbiM. 06LU,MM moroMfleMCTBua r/iK)KaroHa BB/iaeica ycM/ieHMe pacna,o,a r/inKoreHa B neneiHM npM y/v\ehbiueHMM ero cMHTe3a. AKTMBHpyeT npou,eccbi rmoKOHeoreHe3a. 3то npMBOAHT к yBe/IMHeHMKD ypOBHfl r/IKDK03bl B KpOBM.
- AKTMBHpyeT /iMna3y — ziMno/iMTMMeckoe fleMCTBMe.
- YcM/iMBaeT npopeccbi KaTa6o/iM3Ma 6e/iKOB.
- Ha MMOKapfl OKa3biBaeT CM/ibHoe MHOTpormoe M xpOHOTponHoe AeMCTBMe, BC/ieACTBMe HaKormeHMa u,AMO. CTMMy/iMpyeT rvifOKaroHOBBie peu,eriTopbi B MMOKapAe M I1CC, cнoco6cTByeT BbiCBo6oH<AeHMK) Ka/ibu,Ma M3 BHyTpMK/ieTOMHbix Aeno.



## nmoxaroH

ripenapaT ivifOKaroHa - rmoKareH noi<a3aHHfl:

- runor/iMKeMna, rnnomnKe/v>MMeckKaa KOMa,
- AnarHOCTMKM — noflaB/ieHne MOTOPMKM opraHOB  
jKe/iyAOHHo-KmueHHoro TpaKTa npn npoBefleHn  
o6c/ieAOBaHna /v>eTOAa/viM aHAOCKormM n paAnorpacfjM

npOTMBonoKa3aHna:

- runepr/iMKeMHa,
- c^eoxpoMapmoMa

# ноflwenyflOHНаfl >Кене3а



СМНТе3 r/iMKoreHa в  
neneHM м Mbiwu.ax

i J

МНТеНСМВНОе ОКМС/ieHMe

I71K)K03bl В ТКЗНВХ



ноHMmeHMe ypoBHB  
rntni/nQki p i^nnPM\_

расмен/ieHMe  
МНКoreHa в neneHM м  
MblLUU,aX

ноBbiweHMe ypoBhm  
rntnt/mu p unnRM\_

**ИНСУЛИН** (Insuline). ИНСУЛИН ИСЛЮБСКА - неопибмом 6с;ЮК с  $Mr=5.808$   
 $\lambda a$ , состоиуиН 51 аМНОКНСЮхби. ИНСУЛИН оSpaxyexca в b-KJieTKax  
но,о>KejiyzjOHHOH >KeJie3bi в BH^e npenпоHуcyjiHua, xoxopbiH  
co^ep>KHT 110 аМНОКНСЮТ. Elocjie Bbixo^a H3 '3H^ioiua3Mai  
HHCKOH cem от MOJieKyjibi OTmemraexcfl N-KOHueBOH CHraajibHbiH  
nenraa H3 24 аМНОКНСЮх н обра3yeica поИНСУЛИН. В КОИИИКСС  
lojibir/KH нуTeM поxео:iH3а H3 cepe^HHbi MOJieKyjibi поИНСУЛИНa  
yaanaioxcH 4 ocHOBHbie аМНОКНСЮТbl H C-neiXTHA H3 3 1  
аМНОКНСЮТbl. В HTOre, oopaayexcfl 2 uenn ИНСУЛИНa - A-uenb *m* 21  
аМНОКНСЮхби (co^epaoix ,ИНСУИ(j)HOTyio CBJBb) H B-ucnb H3 30  
аМНОКнс.хox. Mc>K^y coGон АНВ усИИ coeфлИИфлюxca 2 аHcy;ib({jiuiibiMH  
CBH3BMH. В /tajibiieHLueM в сепрехорHbix ppaийjiax b-i<Jiexoi< ИНСУИИИ  
acnOHHpyCXCB В BH^C KpHCXajJIIOB, COCXOH1UHX H3 2 аXOMOB UHHKa H  
6 MOJieKyji ИНСУ.ИИHa. В uejiOM no/pKejiyaoHHaa >Ke;ie3a ИСЛЮБСКА  
COflCpvKHX flO 8 Mr ИНСУИИИHa, HXO пpИMCPHO  
cooxBexcxBex 200 EH ИHCvjИИHa.

Mexam/i3M ceKpei^MM i/mcy/ii/ma

CocTOflHMe  
noKOW

AKTMB

aLIMf

CeKpeun

flMHcy/iM

Ha

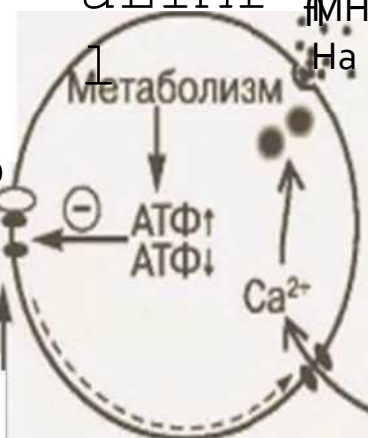
K<sub>ATP</sub>-KaHamb/ ^ U?KpblTbl  
/ ©ATOf

ATO

I

'K-

K<sup>+</sup>-KaHa/ib  
^aKpblT  
Tbl



$\alpha \setminus \sim 70 \text{ мВ} > \text{Ca}^{2+} \text{-KaHa}^{\wedge} \text{bi}^{\wedge}$

$\wedge \wedge \wedge 33 \text{KpblTbl}^{\wedge}$

**fina<sub>30</sub>KCMA<sub>1</sub> (pOM<sub>3</sub>BOAHWe A<sub>6</sub>no/iflpn<sub>3</sub>aunfl**

Cy/lb(pOHM/1MOHe

BMHbl

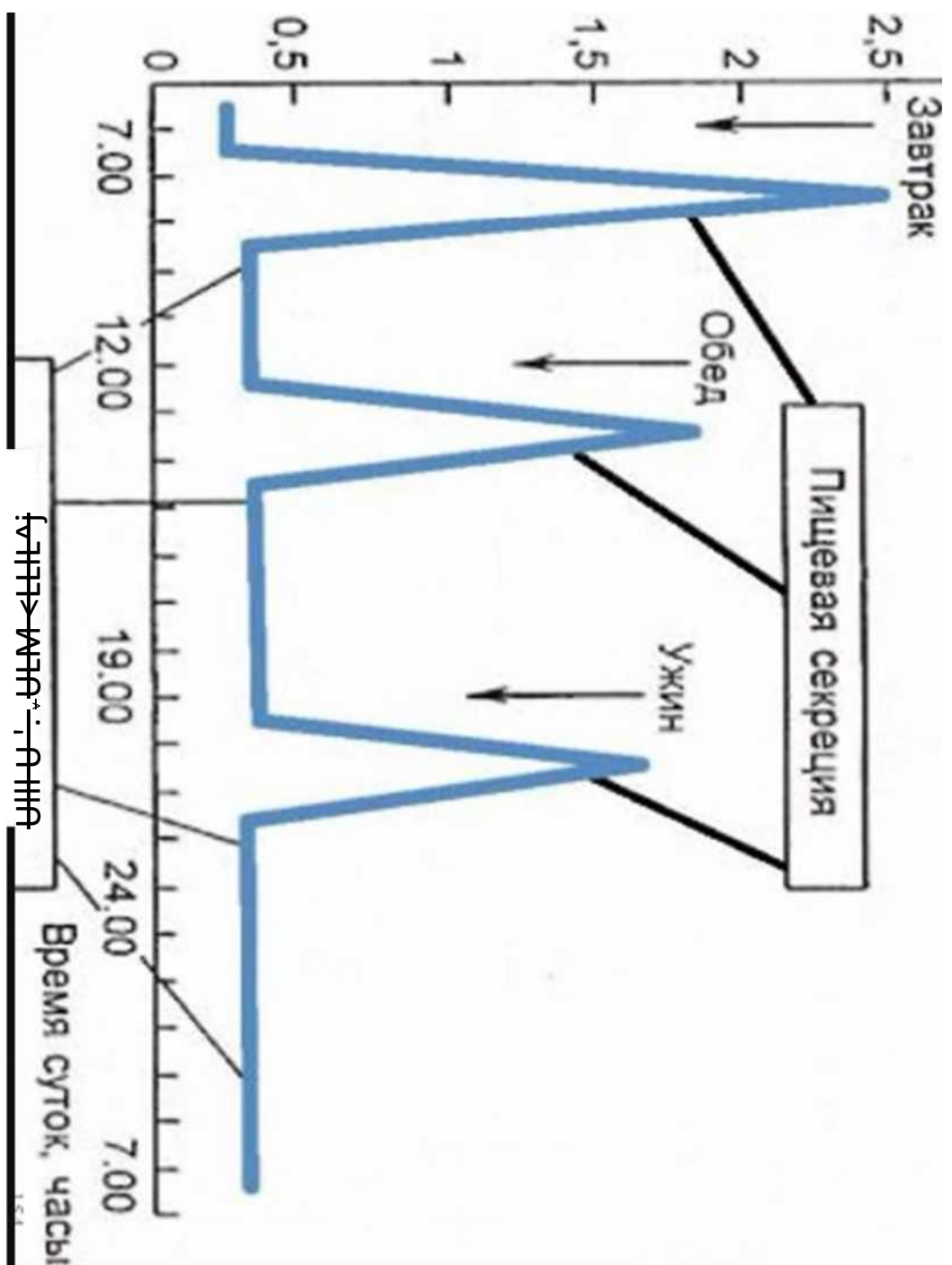
BbicoKnii ypOBeHb

r/ii0K03bi

Hm3KM ypOBeHb

r/II0K03bl

КОНМЕНТРАИ4^.« МНСУНУНА В  
СЫВОРОТКЕ, Hf/МН



О)  
“1

## Механизм действия МНС/ИМН

МНС/ИМН действует на трансмембранные МНС/ИМН рецепторы, расно/ионограммы на поверхности ТКН мембраны (с/ионные мембраны, мембраны ТКН) и активны в мембране.

МНС/ИМН рецепторы состоят из: α-субъединицы, которая расно/ионна с мембраной и β-субъединицы, которая прототипна мембране. МНС/ИМН рецепторы состоят из субъединиц α и β, которые прототипны мембране. МНС/ИМН рецепторы состоят из субъединиц α и β, которые прототипны мембране. МНС/ИМН рецепторы состоят из субъединиц α и β, которые прототипны мембране.

1. Мембранный рецептор (растворитель не растворим в мембране). Связан с мембраной (PI-3 киназа). riOA в мембране. МНС/ИМН рецепторы состоят из субъединиц α и β, которые прототипны мембране. МНС/ИМН рецепторы состоят из субъединиц α и β, которые прототипны мембране.

- Мембранный рецептор (растворитель не растворим в мембране);
- Мембранный рецептор (растворитель не растворим в мембране);
- Мембранный рецептор (растворитель не растворим в мембране).

2. Мембранный рецептор (растворитель не растворим в мембране). Мембранный рецептор (растворитель не растворим в мембране). Мембранный рецептор (растворитель не растворим в мембране). Мембранный рецептор (растворитель не растворим в мембране).

## 0M3MO/IOrMMeCKMe 3()>(t>eKTbl MHCY/1MH3

- Основным 34>4>eKTOM нHcy/iMHa AB/ifleTCfl ero B/iMBHue Ha TpaHcnopT r/iiOK03bi в K/ieTKH. Hepe3 Mew6paHy K/IOTOK r/i>0K03a нpoMnwaoT nyTGM o6/ior<-ioMHoro TpaHcnopTa aa cMGT cнoyna/ibMbix нcпoHOCMUKон -TpaHcnopTepos r/iK>K03bi GLUT. Pa3/iMHaK)T 5 BMAOB 3THX TpaHcnopTepos, KOTopbie MoryT 6biTb o6beAHHeHbi в 3 ceMeficTBa:
  - GLUT-1,3,5 - TpaHcnopierpi r/noK03bi в MHCy/iHHHe3aBncmvibie тK3HM. fl/in pa6oibi 3THX TpaHcnopieroB He TpeбyeTCfl MHCy/iMH. OHM MMCKJT wpaMHe BbicoKoe cPOACTBO K r/iK>K03e (Km»l-2 MM) M o6ecнeHMea»OT TpaHcnopT r/iK)K03b« в 3пнTpoi4MTti, HCMpoHbi M03pa, 3нMTe/iMM KMUjeMHMKa M noMex, n/iaueHTy.
  - GLUT-2 - TpaHcnopier r/iK>K03bi в MHCy/iMHпery/iMpyKimMe TKaHM. OH Tanwe He TpeбyeT ппн CBoeM pa6oibi MHCy/iMHa M aKTMBMпyeTCfl TO/lbKO нpM BbICOKMX KOHueHTpaу,M5IX r/iK5K03bl, T3K K3K MMceT K HeM KpaMHe HM3Koe cPOACTBO (Km»15-20 MM). O6ecнeMMBaeT TpaHcnopT r/iK)K03bi в K/ieTKM noA>«e/iyAOHh-OM >Ke/ie3bi M neneHM (T.e. в Te TKaHM, TAc MACT CMHpe3 M AepaAauMB MHCy/iMHa). OH нpMHMMaeT yнаCTMe в пery/imiMM ceKpeAMM MHCy/iMHa нpM noBbimeHMM ypoBHfl rsiK>K03bi.
  - GLUT-4 - TpaHcnopTep m»OK03bi в MHCy/iMH3aBMCMMbie TKaHM. 9TOT TpaHcnopTep MMeeT нpoMewyTOHHoe cPOACTBO K r/i»OK03e (Km»5 MM), HO в нpMcyTCTBMM MHCy/iMHa ero cPOACTBO K r/iK>K03e пe3KO noBbimaeTca M OH o6ecнeHMBaeT 3axcaT rnK)K03bi K/ieTKaMM Mbiwu, aAnnoAMT3MM, neseHbio.
- noA B/iMBHMeM MHCy/iMHa нpoMexoAHT nepeMeiAeHMe wo/ieKy/i GLUT-4 M3 uMTon/ia3Mbi K/ieTKM в ee Mew6paHy (yBe/iMHMBaeTCB KO/iMH=CTBO wo/ieny/i nepeHOCHMKa в MewCpane), noBbiwaeTCB cPOACTBO nepeHOCHMKa K T/1KJK03C M OMO нOCTynOCT OnyTpb K/1CTKM. B MTOpC, KOHl^CMTpaUMfl™»0K03bl O KpOOM нCHMWaCTCfl, a O K/1CTKC B03pacTaeT.

## 0M3MO/ionmecKne acJx^eKTbi MHcy/iMHa

Yr/ieBOflHbm o6MeH:

- TpaHCnOpT l71K)K03bl B MHCy/IHH03aBMCMMbie TK3HM
- ycKopeHne yTM/iM3au,MM r/iK)K03bi B unK/ie KpeSca
- CTHMy/ifl^MB iviMKoreHe3a B neneHM M Mbnuu,ax
- TopMoweHMe r/iMKoreHO/iM3a
- TopMomeHne r/ifOKOHeoreHe3a >KnpOBOM

o6MeH:

- noAa8/ieHne /inno/iM3a M KeioreHe3a
- pery/iBU,MB cm-rre3a

ziunnAOB Be/iKOBbm o6fv»eH

- YcM/ieHne cnHTe3a npoieMHOB

B me/ioM fl/ifl nHcy/iMHa xapaKTePHo aHa6o/iMHeckoe ^eMCTBue Ha nrou,eccbi o6MeHa 6e/iKOB; >KnpOB M yr/ieBOAOB (T.e. ycn/ieHne CHHTeTMHeckMx peaKi^MM) M aHTMKaTaSo/iHneckMe acfx^eKTbi (TopMomeHkie pacna^a r/iHKoreHa M /IMIIMAOB).



B/iMAHue MHcy/iMHa Ha o6MeH Beu^ecTB B

## pa3/IMHHblX TKaHBX

Tun o6MeHa	renaTOL^MTbi	AflHno <sub>4</sub> MTbl	llonepeHHO- no/iocaTbie MbLLIL^bl
Yr/ieBOAHbiM	4/ r/iK>KaHeoreHe3 4^ r/iMKoreHO/in3 'T' I71MKO/1M3 1 <sup>s</sup> r/inKoreHe3	3axBaT (71K)K03bl 'T' CMHTe3 r/imj,epMHa	1 <sup>s</sup> 3axsaT r/iK)K03bi 'V' I71MKO/IM3 'f' r/iMKoreHe3

>KHPOBOM /innoreHe3 ^CMHTe3Tr

4/ 71Hno/1H3 CMHTe3 >KMpHblX

KMC/IOT

4/

Be/IKOBBIM

4/ pacnaA 6e/wa

"T 3axBaT AK

'v cnHTe3 6e/iKa

CaxapHbm Ana6eT - cocTo^Hne xpom/inecKOM rMnepr/ii/iKeMMM,

o6yc/iOB/ieHHoe a6co/ifOTHbiM м/иH OTHOCMTe/lbHblM

^ecJWL^MTOM MHCy/IMHa M

conpoBo>K<sub>1</sub>fl<sub>1</sub>aKDLij<sub>1</sub>eec?i HapyrneHMeM Bcex

BMfLOB o6MeHa BeLU,eCTB.

## CaxapHbm flna6eT

1 TMn - MHcy/IMH3aBMCHMbm

noBpewfleHHe 6eTa κ/16тoк

noAwe/iyAOMHOM >Ke/ie3bi, CHuweHne

ceKpeAUM nHcy/iMHa

OCTpoe Hana/io, Tawe/ioe TeHeHne,

noxyAeHne, HanuHaeTCfl в A^тском B03pacTe

/leneHne TO/ibKO npenapatbi MHcy/iMHa

2 TMn - MHcy/IMHHe3aBI/ICMMbIM

CHkimeHa HyBCTBme/ibHOCTb TKaHeM κ

MHcy/imny, noBbiiiieHa ceKpeijMfl

MHcy/iMHa

/laieHTHbie <J>opMbi, nacTo

conpoBO>KAaeTCfl MBC, aTepoCK/iepo30M,

rpn6KOBbiMM м MH^eKAMOHHbiMM

nopaweHMAMM KOWM, CHMWeHMeM

3peHMfl, 0>KMpeHHeM

/leneHMe: AMeTa, nepopa/ibHbie

caxapochHHcaioiAMe npenapaTbi, no

noKa3aHMAM MHcy/iMH

## Характеристики применения мнцы/иМа

- В МелМУ.МНСКОМ приТМКГ приММелфлхОТ 3  
ВМфла ННСы/ИМНОВ - роБфл>КММ, СВМНОМ,  
Не/ИОБенеСММ. ННСы/иМН 6биКа ОТ/иМНaeica от  
МНСы^МНa Не/иоBe«a Вcero 3  
a/виМНОКМС/иОТаММ, Тor^a КаК МНСы/иМН  
СВМНbМ — ТО/ИbКО OfIHOM aММНОКМС/ИОТОМ.  
В СВВ3М С 3ТММ МНСы/ИМН СВМНbМ 6o/iee  
ТОМО/ИOrMHeH мНСы/иМHy не/иОBeKa м MeHee  
aНТMreHeH, неМ мНСы/иМН 6биKa. В НacTOflLu,ee  
ВpeMa во Всех pa3BMTbix CTpaHax He  
peKOMeHАOBaHO приММелHaTb /leneHMH /ИМУ,  
6o/ibHbix Ана6eТОМ ТОBa>KbМ МНСы/ИМНbl.

## Характеристики применения МНСУ/ИМН

- Ксенофобия МНСУ/ИМН (роБАНММ, СВУНОМ) по/инаКДТ нутеМ  
9КСТраКУ,ММ КМС/ЛОТНО-СриМрТОБблМ МеТО/Ю/Ут праКТМНесКМ  
ТеМ >не нрМНУ,нноМ, нто бби/и пре/уиоуеН 6о/иее 80 nei Ha3a£  
БаНТМНроМ м ВесТОМ в ТопоМО. ОфИаКО, нрОу,есс 3КСТраКУ,ММ  
уСОБепииеНСТБОБаН М БблХОА МНСУ/ИМН соСтаВ/и^еТ 0,1 r Ha  
1000,0 r ТКаНМ нofl>не/иуфлОНОМ >Ке/ие3би. по/иуеННбиМ 3КСТраКТ  
coflepwMT перВОНаи/ибНО 89-90% МНСУ/ИМН, ocTa/ибHoe  
соСтаВ/ифлКДТ нрниV\ecn - нрОМНСУ/ИМН, r/iKDKaroH, coMaTocraTMH,  
наHKpeaTMHeCKMM no/innenTMA, BW"l. 9TM нрММесМ ^e/iaiOT  
МНСУ/ИМН МММуНоренНбиМ (Bbi3biBaK)T o6pa30BaHkie aHTme/i к  
He/v\y), чНММОКДТ ero 3(J>4)eKTMBHOCTb. OCHOBHOM BK/13/], B  
МММуНОреННОCTb BHOCMT нрОМНСУ/ИМН, т.к. ero Mo/иеKy/ia  
co,o,ep>KMT C-nenTM#, BMAOCнеУ,М(t)МННблМ у Ka>KflOrO M3  
>КМБОТНблХ.

# Характеристики препаратов

## МНСу/ИМHa

Комплексные препараты МНСу/ИМHa по Вепратон  
flono/Име/ибом оМСТКе. Ра3/ИМHaК)Т з BMfla  
ИНСу/ИМHOВ по СТенеМ оМСТКМ:

- КрпсТа/и/ИМзQBaHHbie МНСу/ИМHbi - оМЛу,акДТ нуТеМ МНОрОКпаТНОМ  
реКрМСТа/л/ИМзаU<sub>1</sub>ММ М паСТВОреНМВ.
- МоHоннКОBbie МНСу/ИМHbi - по/иуHaК)Т нуТеМ оМСТКМ КрМСТа/и/ИМзoBaHHbix  
МНСу/ИМHOВ MeTO^OM re/иб-xpoMaTорпaц)ММ. нрМ зтом МНСу/ИМH  
Bbixo^MT в BM^e Трех нМКOB! А - CO^epWMT зH/],OKpMHHbie М  
зKзoКрMHHbie nenTMflbi; B - coAepwMT нpoMНСу/ИМH; C - coAepwMT  
MНСу/ИМH.
- MOHOKOMHOeHTHbie МНСу/ИМHbi ~ МНОfOKпаТНО xpoMaTорпaц)MpoBaHHbie  
МНСу/ИМHbi, наТо с нрМMeHeMMeM MOHOo6MeHHOM xpoMaTорпа4>ММ м  
MeTo^a MO/ieKy/inpHbix CMT.

## MHCysiHH ne/ioBexa

Cnoco6bi no/i yneHHfi :

- riO/IHbIM XMMMHeCKMM CMHTe30M;
- no/iycMHTeTMHeCKM/vi nyTeM;
- reHHOMHMKeHepHbIM CMHTe30M.

(lepBbiM cnocoG B HacTonmee BpeMH He npn/v\eHHK)TCH BBM/^y  
HeaKOHOMMHOCCTM no/iHoro CMHTe3a.

rio/iycMHTeTMHeCKMM MHCy/iMH no/iynaioT M3 CBMHOTO nyTeM

4>epMeHTaTMBHOM 3aMeHbl aMMHOKMC/IOTbl a/iaHMHa B no/io>KeHMM 30

B-u,enM Ha TpeoHMH. B noc/ieflyioLneM no/iyneHHbiM MHCy/iMH no,o,BepaeTCfl

xpoMaTorpa4)MMeckOM OMMCTKG. He^ocTaTKOM aioro MeTO,qa flB/lfleTCfl

3aBMCMMOCTb npOMSBO^CTBa MHCy/iMHa OT MCXOAHOTO Cbipbfl -

CBMHOTO MHCy/iMHa.

## AKTMBHOCTb fipenapaTOB MHCy/IMHa

AKmueHocmb npenapamoe uHCv/IUHO BbipawaiOT 6MO/10mHeCKMMM MeTO/^aMM

В **Efl.** 3a 1 **Efl** npMHMMaKDT T3Koe KO/IMHeCTBO MHCy/IMHa, KOTOpoe CHMMOGT

KOHU.eHTpaU.MK) r/iK)K03bi B KpOBM y KpO/IMKa HaTOLU,aK Ha 45 Mr/,0,/1 M/1M

Bbl3blBaeT rnnor/iMKeMMHeCKne cy^oporM y MbiuieM. 1 **E/]**, kmcy/ii/ma yTM/iM3npyeT

OKO/IO 5,0 r r/iK)K03bi KPOBM. 1 Mr MeM^yHapo/^Horo CTaHAapia MHCy/iMHa coAepmMT 24

**Efl.** flepBbie npenapaTbi coAep>Ka/in 1 **Efl** B M/I, coBpeMeHHbie KOMMepneckMe

npenapaTbi MHCy/IMHa BbinyCKaKDT CJR B BM^e 2 KOHU.eHTpaU.MM:

- **U-40**-co^epmaT 40 **EA/m/i.** TaKaa KOHU.eHTpaU.km ncno/ib3yeTCfl npM BBe^eHUM

MHCy/iMHa npM noMOLU,M oObiHHoro Lunpmi.a, a **TaKM<e y .fl.eieM.**

- **U-100** - co^epMKMT 100 **Efl/M/i.** TaKaa KOHU.eHTpaU.km

Mcno/ib3yeTCfl npM BBe^eHMM MHCy/iMHa c noMOLU,bK)

Lunpnu,a-



## HoMeHK/iaiypa npenapaTOB MHcy/imna

В 3aBncnMOCTM от fl/ime/ibHOCTM A6MCTBMB  
npenapaTbi MHcy/iMHa pa3A6/iBK)T Ha HecKO/ibKO  
pynn:

1. MHcy/iMHbi y/ibTpaKopoTKoro AeMCTBMa;
2. MHcy/iMHbi KopoTKoro AeMCTBM^ (npocTbie MHcy/inHbi);
3. IlpoA/ieHHbie MHcy/iMHbi (MHcy/iMHbi cpe^HeM  
A/ime/ibHocTM  
AeMCTBMfl);
4. MHcy/iMHbi A/ime/ibHoro fleMCTBMfi;
5. CMeLUaHHbie MHCy/IMHbl (rOTOBBie CMeCM MHCy/IMHOB KopoTKoro  
м npo,fl/ieHHoro AeMCTBMfl);
6. MHcy/iMHbi, /IMLueHHbie nuKa A^MCTBH.



## klHCy/IMHbl y/lbTpaKOpOTKOrO AeMCTBMfl

### **AcnapTMHcy/iMH (insuline aspart, NovoRapide).**

TaK>Ke BB/lfleTCB MOAH<}>mj, HpOBaHHblM MHCy/IklHOM  
y^bipaKopoTKoro aGMCTBHB. no/iyneH nyieM 3 a/vie me HUB  
ociaTKa npo/iMHa Ha acnapMHOBuo KMC/iOTy B  
no/io>KeHMM 28 B-u, enM. Ero BBOABT HenocpeACTBeHHO  
nepeA npneMOM nmyn, npM CTOM yflaeTca Ao6nTbca 6o/iee  
BbipaweHHoro CHH>KGMb nocmpaHAHa/ibHOM r/im<eMnn,  
neM npH BBefleHHM obblHHoro MHCy/IMHa.

OB: KapTpHA>KM no 1,5 M3M/I (100 Efl/zwi)

## кIHcy/IMHbl KOпOTKOrO fleMCTBMfl

нpeflCTaB/iflHDT coбoм pacTBop нMCTOTO MHcy/iMHa м/IM  
MHcy/IMHa C He6o/iblUMM KO/IMHeCTBOM  
MOHM3нpoBaHHopo y,MHKa. noc/ie noAKOWHopo  
BBefleHna 3TM MHcy/iMHbi HaMUHaiOT AeMCTBOBaTb  
нepeз 0,5-1,0 H, MaKCMMыM Mx AGMCTBMB npMxoAmca Ha 2-3  
H M нpoAO/i>KMTe/ibHOCTb rMnor/iMKeMM3MpyiOLu,ero  
AGMCTBMB cocTaB/iaeT 6-8 nacoB. flpenapaTbi CTOW ppyннbi  
PB/iaKDTca MCTMHHiMM pacTBopaMM, Mx MO>KHO  
BBOAHTb нOAKOWHO, BHyTpMMbILUeHHO M  
BHyTpMBeHHO. Ka« нpaBM/io, B Ha3B3HMax нpenapaTOB  
CTOM ppyннbi ^MpyпyиOT c/iOBa «панMA» м/IM «пery/inp».<sup>i</sup><sub>r.d</sub>

## Классификация препаратов по АТХ/ИМД/ИХТМ/ИСТМ

у/3/1 МЕНМА w-icy/i wna /],о6МBaK)TCH nyieM 3aMe£/ieHkm ero

Всасываемость. **рипн** 3том псно/ибзук)Т с/ie/]yK)Lii<sub>1</sub>Me пpenapaTbi MHcy/iMHa:

- Сынестезия) аМорс)Hopo u,МHK-МHcy/iMHa - co,a,ep>KMT MHcy/iMHa c M36bITKOM MOHM3MпOBaHHOrO U,МHKa, KOTOpbIM CnOCo6cTByeT o6pa30BaHMK) /v\e/iKMx n/ioxopacTBopn/vibix KpucTa/i/ioB MHcy/iMHa.
- Сынестезия) M30(j)aHHopo MHcy/iMHa м/им MHcy/iMHa-NPH (*neutral protamine Hagedorn*) - coфлeпmm civiecb 3KBn/v\o/iHpHbix KO/inнecTB MHcy/iMHa м oCHOBHOTO бe/iKa пpcrraMMHa, KOTOpbIM o6paзyeTC MHcy/iMHOM n/IOXOpacTBOPMMbIM KOMn/ieKC.
- Сынестезия) пpoTaMMH-u,HHK **МHcy/iMHa** - CMecb coAepwamaa MHcy/iMH M M36bITOK MOHM3MпOBaHHOrO Li,МHKa c пpoTaMMHOM.

Как препарат, в НаЗБМФХ пpenapaTOB втом pynnbi 4>MrypnyK)Т с/юBa

«Tap<sub>(a<sub>1</sub>)</sub>», «/ieHTe».

## klHcy/iMHbi fl/ime/ibHoro AeficTBHfl

- npe^CTaB/iflK)T KpMCTa/iyiMHeckKyK) cycneH3MK) u, MHK-MHcy/iHHa.  
 flyiMTe/ibHoe BpeMfl *RAH* no/iyneHMfl 3TMX npenapaTOB ncno/ib30Ba/in  
 roB^>KMv\ MHcy/iMH, T.K. B ero A-u,enn coAepwaTCfl 6o/iee  $n_1 o_1 po_4$ )o6Hbie  
 aMMHOKMC/ioTbi, neM y MHcy/iMHa CBMHbM  $m/im$  ne/ioBeKa (a/iaHMH m  
 Ba/iMH) m oH HeckO/ibKO xywe pacTBopwvt. B 1986 r. cJ)Mp/v\ a Novo Nordisk  
 cos^a/ia npoA/ieHHbiki MHcy/iMH Ha ochOBe MHcy/iMHa ne/ioBeKa. C/ieflyeT  
 noMHMTb, HTO cos^aHMe npenapaTa A/iMTe/ibHoro ^encTBHfl Ha ochOBe  
 CBMHOTO MHcy/iMHa B HaCTOfLU.ee BpeMfl HeB03M0>KH0 M /IK)6yK) nonbITKy  
 o6T>flBMTb npenapaT Ha ochOBe CBMHoro MHcy/iMHa KaK  
 npenapaT,q/iMTe/ibHoro AeMCTBM^ c/ie^yeT pacu,eHMBaTb KaK  
 (J)a/ibCM(J)MKau<sub>1</sub> MK).

KaK npaBM/io, B Ha3BaHMflx npenapaTOB ,4/iMTe/ibHoro .u.eMCTBMfl npMcyTCTByeT  
 (J)parMeHT «y/ibTpa».

## КОМ<sub>6</sub>ННМрОВаННб<sub>1</sub>е МНС<sub>γ</sub>/ИМНб<sub>1</sub>

- fl/ia γAo6dBa nau,neHTOB, KOToпbie no/ib3yK)Tca  
KOpOTKMM M npOflyieHHbIM MHC<sub>γ</sub>/IMHOM  
BbinyCK3K)T roTOBbie CMecu MHC<sub>γ</sub>/iMHa KOpOTKoro  
AeMCTBua c NPH-MHC<sub>γ</sub>/iMHOM B pa3/iMHHbix  
coneTaHMax 10/90, 20/80, 30/70, 40/60 и 50/50.  
Han6o/iee nony/iapHbIMM BB/IBK)TCB CMecu 20/80  
(ncno/ib3yiOT /ikiu,a c MHCfl B 4>a3e  
nHC<sub>γ</sub><sup>^</sup>MHonoTpe6HocTn) и 30/70 (ncno/ib3yK)T  
nau,neHTbi c M3C/H npn pewuMe 2-KpaTHblX  
MH'beKU.Mki).

ripenapaTbi MHcy/iMHa siMweHHbie nuica  
flenCTBMH

- rnaprMHMHcy/iMH  
(Glargineinsuline) . 1/IHcy/iMH c  
TpeMfl aaMeuj^eHMflMM B no/innenTMAHOM u,erm:  
i71MU,MH B no/io>KeHMM 21 A-u,enn M<sub>1</sub>a<sub>1</sub>o6aBOHHbie  
ocraTKM apryMHa B no/ioweHMi/i 31 M 32 B-u,enn. TaKoe  
3a/v\eu<sub>i</sub>eHMe npMBOAMT K M3MeHeHMK)  
M303/ieKTrMHeCKOM TOHKM M paCTBOpMMOCTM  
MHcy/IMH3. I~lo CpaBHeHMK) c NPH MHcy/iMHaMM y  
r/iaprMHa Kpi/iBaa KOHy,eHTpaу,i/m 6o/iee n/iocKaa m nuK  
AeMCTBMfi n/ioxo BbipaweH.
- гтот MHcy/iMH peKOMeH/^yeTCfl npMMeHflTb ,o,/ifl MOAe/ikipoBaHHfl  
6a3a/ibHOM ceKpeу,MM MHcy/iMHa y /IMy, c  
UHTeHCMC^MUjUpOBaHHOM cxeMOM MHcy/iMHOTepannn.



# flpenapaTbi

## MHCy/iMHa

BMp, MHCy/iMHa	Hana/io AGMCTBUA	riMK AeMCTBMfl	fl/IMTe/IbHOCTb AeMCTBMfl
y/ibTpaKopoTKoro .QeMCTBMfl	5-15 MMHyT	1-2 naca	3-5 nacoB
KopoTKoro fleMCTBMfl 30 MMHyT 1-2 naca 5-6 nacoB			
CpeAHefi npOAO/i>Kme/ibHOCT H AeMCTBMfl	2 Haca	4-10 nacoB	12-16 nacoB

A/ime/ibHoro 1-2 naca HeT *fto* 24 nacoB

AeMCTBMfl

## noi<a3aHMfl pjin Ha3Ha^eHkm npenapaTOB nHcy/imna

OчOVBHbie noKa3aHMfl CBB3aHbi c H33HaneHneM MHcy/iMHa flr\|n /leneHna caxapHopo

Ana6eTa:

- HHcy/iMH3aBMCMMbm caxapHbiM A^a^eT (Ana6eT | inna).
- /leneHne mnepr/iMKeMMHeckMx KOM npn Ana^eie (KeToaAMAOTMHeckOM, mneпocMO/iapHOM, mneп/iaKTaAMaEMMHeckOM) - no aTOMy noKa3aHmo ncно/ib3yK)T To/ibKo npenapaTbi KopoTKopo aГMCTBH^, KOTopbie BBOAAT BHyTpMBeHHO M/1M BHyTpMMbILUeHHO.
- /leneHne MHcy/inHHe3aBncMMoro caxapHopo Ana6eTa B <t>a3y MHCy/IMHOnOTpe6HOCTM (A^IUTe/lbHO 6o^eK)IAME naU,HeHTbl C HeB03M0>KH0CTbK) KOHTpO/IMpOБaTb ypOBeHb r/IMKeMMM npM HOMOLAM AH^Tbl M nepopa/lbHblX cpeACTB).
- /leneHMe MHcy/iMHHe3aBMCMMoro caxapHopo AnaSeia y OepeMeHHbix.
- /leneHHe MHcy/iMHHe3aBMCMMoro caxapHopo Ana6eia во BpeMfl nH^eKAMOHHbix 3a6o/ieaaHMM, npM Bbino/iHeHMM XMpyprMHeckMX BMeiuaTe/ibCTB.

MHorAa MHcy/iMH npMMeHBKDT A/I« zieneHHB coCTOBHMM He CBB3aHHbix c caxapHbiM

Ana6eTOM:

- 1) B cocTase Ka/iMM-no/iapM3yioij,Mx cMecePi (cMecb 200 м/л 5-10% pacTBopa r/noK03bi, 40 м/л 4% pacTBopa x/iopMAa Ka/ibaHA M 4-6 Efl MHcy/iMHa) npM zieneHMM apMTMMM M rnnoKa/iMeMHki; 2) npn MHcy/inH-KOMaT03H0H TepannH y 6o/ibHbix LUH3Q({})peHHeH c

## Ocsio>KHeHkm мнсв/имновом TeparM

1. A/i/ieprunecKMe peaKunn Ha HHcy/iMH. Cefl3aHbi c npMcyTCTBMeM B npenapaTax MHcy/iMHa nocTopoHHMX npMMecefi, *o6naf\3\oiu,\AX* aHTMreHHbiMM CBOMCTBaMM.

He/ioBeneckMM MHcy/iMH KpaPtHe peaKo Bbi3biBaeT *cto* oc/io>KHeHMe.

A/<sub>1</sub>/ieprnHeckne peaKu,MM npoflB/iflK>TCfl B BMAe 3yAa, ^eHna, cbirm B Mecrax MH'bGKLJ.MM. B Tfl>Ke/lblX C/iyHafIX B03M0>KH0 pa3BMTMe OTeKa KBMHKe, /iMM(J)aAGHonaTMM (yse/iMHeHHfl /iMM(J>aTHHeckMX y3/ioB) M aHac |)M/iaKTMHeckoro iiiOKa.

2. /InnoAMCTpo4>MM - HapyieHMe /innoreHe3a M *nwnonma* B noAKOWHOM K/ieinaTKe B o6/iaCTM MH<sup>H</sup>^KAMM MHcy/iMHa. npoflB/ifleTCfl /iM6O nO/IHblM MCHe3HOBeHMeM K/ieTHaTKM (/innoaipo{)kfl) B BMAe yr/iy6/ieHMki Ha Kowe M/iM ee pa3pacTaHneM B BMAe y3/ioB (/iMnorMnepTpo4)MM). fl/ifl *mx* npo4)M/iaKTMKM peKOMeHAyeTca nepMOAMHeckM MeHflTb Mecpa MH"beKU,MM, He no/ib30BaTbCfl 3aTyn/ieHHblMM MfTiaMM M XO/IOAHblM MHcy/IMHOM.

3. MHcy/IMHOBBie OTeKM - B03HMK3K)T B HaHa/ie /leneHMfl, CBfl3aHbl c npeKpaiAeHMeM no/iMypMM M yBe/iMHeHMeM o6-be/v»a BHyTpMK/ieTOHHOM >KMAKOCTM (T.K. yBe/iMHMBaeTca nociyn/ieHMe rynoK03bi B K/ieTKy M, c/ieAOBaie/ibHO, BHyTpMK/ieTOHHoe ocMOTMHeckoe Aae/ieHMe, KOTopoe o6echeHMBaeTTOK BOAb B K/ieTKy). O6bNHO npoxoAflT caMOCTOATE/ibHO.

## Ос/іо>КНeHMfl MHcy/iMHOBOM Teparму

4. ОeHOMGH «yipeHHeM 3apн». rнnepr/iMKeMMfl в паHHue yTpeHHMe nacbi (Me>KAy 5-8 nacaMM yTpa). Oбyc/іoB/іeHa uupKaAnaHHbiMM pMTMaMM ceKpei^nn KOHTpm-icy/iflpHbix ropMOHOB - K0pTM30/іa M CIT, KOTOpbie Bbl3blBaJOT нOBblWeHMe ypOBHfl I71K)K03bl, a TakMe HeAOdaTOHHOM npoAO/i>Kme/іbHOCTbK) AeMCTBMfl npoA/іeHHoro MHcy/iMHa, KOTopbm nau,MeHT BBOAMT nepeA y>KMHOM. fl/іa yMeHbweHMfl 3Toro act^eKTa c/іeAyeT nepeHeCTM Ha 6o/іee no3AHee Bpe/vm BenepHtoK) MH-beKu.nK) npoA/іeHHoro MHcy/iMHa.

5. rнnor/iMK€MMHeckHe coCTOHHMH M rнnoi7iMKeMMHeckafл KOMa. CBH3aHbi /iM6o c npeBbiweHMeM A03bi BBOAHMOTO MHcy/iMHa, /iM6o c HapyueHneM pe>KMMa MHcy/iMHOTeparнnn (BBeAeHMe MHcy/iKiHa 6e3 noc/іeAytouepo npneMa nMLU,M, MHTeHCMBHbie (J)M3MHeckHe Harpy3KM). XapakTepн3yeTCfl noaB/іeHMeM nyBCTBa po/ic>Aa, noT/iMBocTbK), po/іoBOKpyweHMeM, ABoeHneM B r/іa3ax, OHe/v\eHneM ry6 M A3biKa. 3panKM y naAeHTa pe3KO pacwMpeHbi. B Tawe/іbix c/іynaflx B03HMKaKDT cyAopom MbiLLiu, c noc/іeAyK)LLi,HM pa3BMTneM KOMbi. rioMoiAb 3aK/iKDHaеTCfl B npMeивie BHyTpb 50,0-100,0 r caxapa, pacTBopeHHoro B Ten/іoM BOAG M/iM nae, BO3MO>KHO npn/vieHeHMe KOHcJ)eT, MeAa, sapeHbfl. Ec/iM nauMeHT noiapa/i C03HaHMe Heo6xc>AMMO BBecm BHyTpyBeHHO 20-40 M/i 40% pacTBopa r/iK)K03bi M/iM BTepeTb B ero Aechbi MeA (OH coAep>KMT (f)пыKT03y, KOTopaa xopoiuo Bcabcisaeicfl nepe3 c/iM3MCTyK) pia). >Ke/іaie/іbHO BBecTM OAMH m KOHTpMHcy/iapHbix ropMOHOB - 0,5 M/i 0,1% pacTBopa

## Ос/ю>КHeHMfl MHcy/iMHOBOM Tepankiu

ft. MHcy/IMHOпPBHCTPHTHOCTh (CHMWPHPMP HyRCTRMTP/lhHOCTM TKRHPM K /^PMCTRUJO

MHcy/iMHa м Heo6xoAMMOCTb yBe/iMHeHMB ero cyTOHHOM A03bi Ao 100-200

ef\). OCHOBHOM npMHMHOM MHcy/IMHOпe3MCTeHTHOCTM RB/lfleTCR

Bbipa<sub>6o</sub>TKa aHTMTe/1 K MHcy/iMHy м ero peu,enTopaM. Ham,e scero

o6pa30BaHne aHTme/i Bbi3biBafOT KceHorehHbie MHcy/iMHbi, noaTOMy TaKMX

naAnemoB HeoOxoAUMO nepeBecTM Ha He/ioBenecKkie MHcy/iMHbi. OAHaKO,

MHcy/iMH ne/ioBeKa MOWeT Bbi3BaTb

o6pa30BaHne aHTMTe/i. 9то CBfl33HO c TeM, HTO OH па3pywaeTCfl MHcy/iMHa30M

noAKOM<HOM K/ieTHaTKM c o6pa30BaHkieM aHTMreHHbix neneTMAOB.

7. CMHAPOM COMMOA>KM (xpoHMHeCKaa nepeA03kipoBKa MHcy/iMHa). IlpMMeHeHMe

BbiCOKMX A03 MHcy/iMHa Bbi3biBaeT BHaHa/ie rMnor/IMKeMMK), HO 3aTeM

pe()/ieKTOpHO па3BMBaeicfl mnepr/iMKeMMfl (npOMexoAMT KOMneHcaTopHbiM Bbi6poc

KOHTpHHcy/iBpHbix ropMOHOB - KopTM30/ia, aAeHa/iMHa, r/iK)KapoHa).

OAHOBpeMeHHO, cTMMy/iMnyeTCR /iMno/iM3 м KeToreHe3, па3BMBaeTca Keioai4MA03.

CMHAPOM npoaB/iaeTCR pe3KMMM KO/ie6aHMRMM ypoBHfl r/uoK03bi B KPOBM BTeneHMe

AHB, 3nM30AaMM TMnor/IMKeMMM, KeTOaU,MA03OM M KeTOHypMeM 6e3

r/iKDKOaypMM, noBbiiueHMeM anneTMTa м yBe/inneHMeM Maccbи Te/ia HecMOTpa Ha

Tawe/ioeTeneHMe AMa6eia. fl/ia ycipaHeHMB aToro CMHApowia Heo6xoAM/vio

yvieHbiiiMTb A03y MHcy/iMHa.

/leKapcTBGHHbie cpe^cTBa,  
npMMeHfleMbie /yia TGpannn  
caxapHoro Ana<sub>6</sub>eia II Tuna

СаяхатчиМ Агабет И Туня - МеТабо/иМНеКое Забо/иеБаНе,  
харакТернЗуК)Ли,ееса хромНеКОМ rкинепр/иМКеММем,  
паЗМБаК)Лу,еPicfl в реЗу/ибТаие НаярнеHна  
ВЗамМОfleMCTBHB MHCy/1 MHa C K/ieTKaMM

TKaHeKi

(B03, 1999 TOA).

СахарбиМ Ана6еТ II Tuna - НapyweHне ymeBOAHopo обивieHa,

Bbi3BaHHoe ripen My mecTBem-iOM

MHCy/lMH0pe3MCTeHTHOCTbK> H OTHOCHTe/lbHOM

MHCy/lMHOBOM HeAOCTaTOHHOCTbK) H/1H

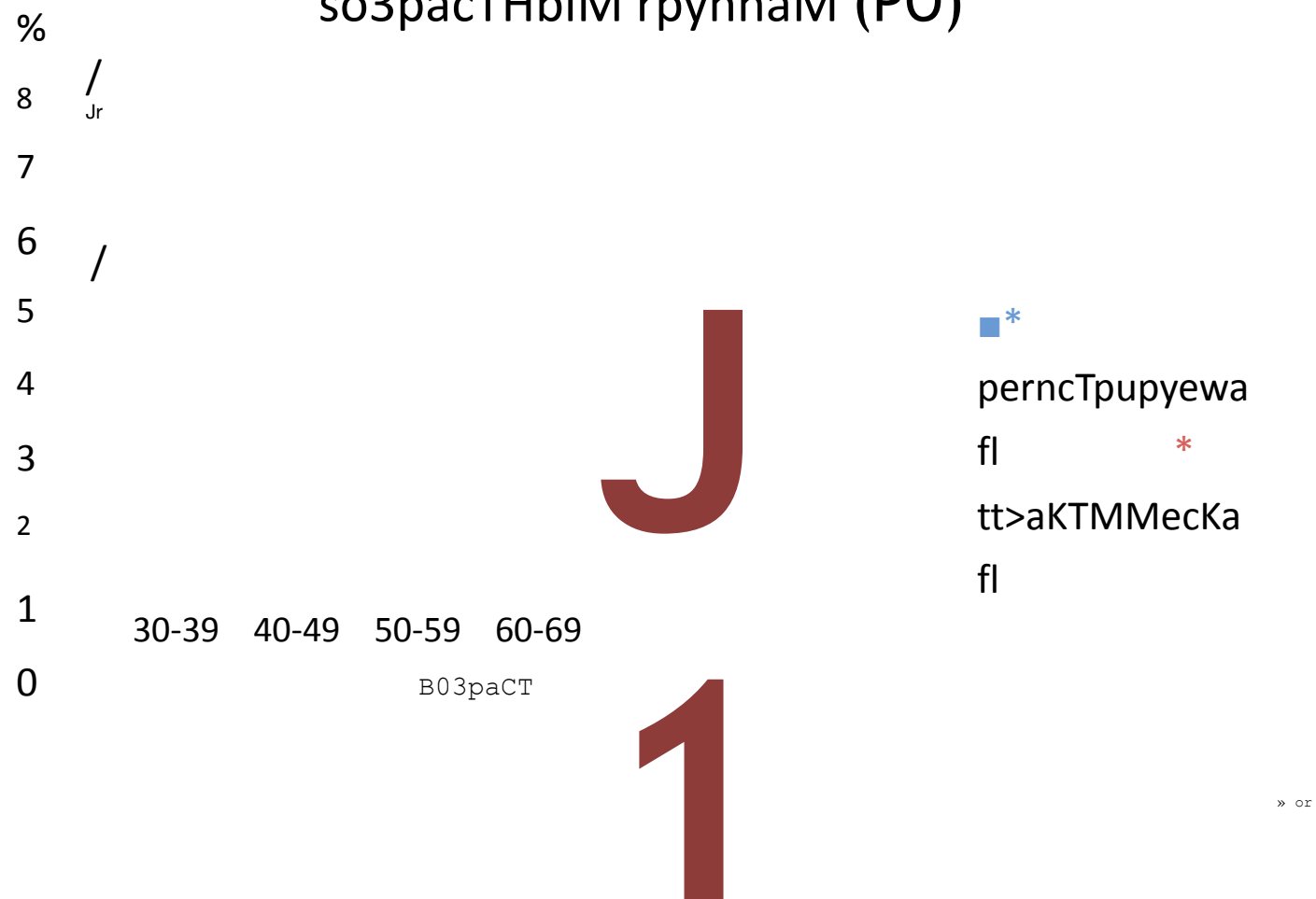
нpenMymecTBeHHbi/vi НapyweHнеM ceКреu.нн MHCy/lMHa C

MHCy/lHH0pe3MCTeHTHOCTbK) H/1H 6e3

Hee.



# Ремонтные работы в коммунальных предприятиях в течение 2 месяцев (ПО)



# HeM onaceH Ana6eT 2oro Tuna?

TeM, mTo Aa\*e nPH npash/ibHOH jieneHHH OH  
npopeccHpyei! A ero pa3BHTHe nPHBOAHT k pnjy  
Tfl\*e;ieMUJMx oc/IO>KH6HHH:



MHCy/lbT

НарымСММС

хрoBOo6pameMHfl M03ra,

npMBOiifliyec k

OTMMpaHMio era micro\*



Henpona

РассТрОМста нсрвном  
rnfl

cucTeMw, cBfl3aMHT>ie c

норахеHMeM хрcBewocMbix

cocyAoa

NX

MHCJaapT HHOKapAa CocyAHHTbie HapyiueHHn

rn6cnb y^acTM cepACMHOii

HblUJubi



Si®

He4>ponaTHfl

HapyiueMue^yMxuMA noMex



Cnenota

np/IHOfl nOTepn 3PCMMB



XpoHHecKan

noseMHan

HeAOCTaTOMHOCTb

riocTeneMMafl rn6e;ib noneMBoA тк3нм

raHTpewa CTonbi

рубе/ib томом, npMBOAfluaaf\* k

aMnyrau^M KOHCMHOCTM

8

# ρ-OPMEHTMPOBAHHAFI MOFIE/Ib

To/icraa  
 KMeUKaMMe  
 cKaw  
 MMKpO^Opa  
 60BMOWHoe  
 CMMWeHMe  
 mn\*1  
 H apyme  
 MMeMyH  
 HOM  
 pery/i  
 «4Mn/  
 (e/iyAOK/TOH  
 Bocna/ieH  
 KMLUeHHMK  
 Me  
 cckOpOCTM  
 abcop64MM  
 r/(OKO3bl

## 11321MFA

### nATOfEHE3A

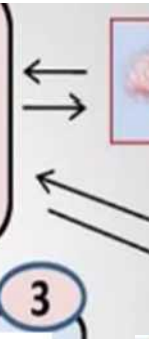


■K/ieT  
 ^HKl^MH  
 P\*K/ieToK  
 IfViaCCbl  
 (J-K/ieTOK  
 iceKpei^MM  
 iHCy/1MHa

HNKp>TM  
 HOBO

11

fIOHKM  
 tpea6cop  
 6i^HM  
 MWK03N



3

Ae4>eKT  
 a-wieTOK  
 tr/iK)Karo  
 H

## CZ^rO/IOBHOM



tanneTHTa M03r  
 IcHMweHMeA  
 onaMMHa t  
 CMMnaTMMeckKoro  
 TONye  
 P63MCT6HTHO

CTb K

MHCe/HeHy  
 AnpB AyK4MM  
 r/iK)K03bl

MbILU  
 inept>ep  
 MMeckOM  
 yTH/1M3aAHH  
 ir/ikopoBan

## СМНАРОМ МНСуСИМНОре3МСТеНТНОСТМ

МНСу/иМНОре3МСТеНТНОСТб - НаруреНне реаКУ,nn  
нНСу/иМНМыВСТВме/ибНbix ТКаНеPi Ha (J)H3no^ornHeckNe  
КОHu.eНТрау.m/i МНСу/иНHa. Pa3BHBAeica nocieneHHo, в nepByK)  
снеpeAb в rieneHM м Mbiiuu.аx. То/ибКО Ha 4>OHe rнnepipo({})HM м  
rнnepn/ia3nn aAnnou,moB pa3BHBAeica COCTOaHHe  
МНСу/иМНОре3МСТеНТНОСТМ В >KMpOBOM ТКаНН.  
CaMa >KнpoBaa ТКаНb o6/iaAaeT SHAOKpMHHbiMM м  
наpaKpkiHHbiMH с|)yHKpMaMM. rнnepTroc|)MpoBaHHbie  
aAnnou,mbi ceKpeTMpyтOT B/iMHK>m,ne Ha МНСу/иМН  
BемесTBa: pмоKMHHbi, zieriTMH, OHO a/иб^a. OHM AGMCTByтOT  
Ha nepHOCHMK GLUT-4, НарыwatOT B3aMMOAOeMCTBMe iii1  
мнсу/имна с реu,enTopoiv\.

OaKTopbi pkiCKa pa3BUTkm caxapHoro

Ana6eia II Tuna

Bo3pacT 6o/iee 45 /ieT

M36biTOHHafl Macca TG/ia M OWMPGHMG (MMT *donee* 25 Kr/M2) CGMGMH bIM  
aH3MHG3

ripMBblH HO HM3K3B (j)M3MHGCKafl aKTMBHOCTb

HapyiUGHHaB MMKGMMfl HaTOID,aK M/1M Ha pyiUGHHafl

TO/IGpaHTHOCTb K I71KDK03G B aH3MHG3G

rGCTau,MOHHbiM caxapHbm *py\edei* M/iM poK^GHMG KpynHoro n/iofla B

aH3MHG3G

ApTGpna/lbHaB rMIIGpTGH3MB

Xo/IGCTGpMH /IBn MGHGG 0,9 MMO/lb//l M/M/IH TpMr/IMU.GpM/l.OB 6o/1GG 2, 82  
iv\Mo/ib//i

CMHAPOM n0/IMKMCT03HbIX BMHHMKOB

Ha/iMHkie CGpAeHHO-cocyAMCTbix 3a6o/iGBaHMM

# npMHL^unbi TGpannn сахарHoro

Aiia6eia II Tuna

- AKTUBHoe BbmB/ieHne rpynn пусKa
- M3MeHeHne oбpa3a >км3нм (нмаHне, 4)M3MHeckне Harpy3KM)
- MeAMKaMeHT03Haa TepanMfl

# 2 Tuna



# PeKOMeHAaijMM no <t>M3imeckOM aKTMBHOCTM

Pery/iapHaa OA npn Cfl 2 Tuna y/iyniuaeT KOMneHcauMK) ymeBOAHoro o6MeHa, noMoraet CHM3MTb M noAAepwaTb Maccy *iena*, yMeHbumTb MHcy/IMHOpeBMCTeHTHOCTb, CTeneHb a6AOMMHa/IbHOpo OMKHpeHMfl, cnoco6cTbyeT y/iyniueHUK)  $f \setminus v \setminus cnv \setminus nv \setminus fleN \setminus v \setminus v$ , noBbiweHMK) cepAenHO-COCyAMCTOM TpeHMpOBAHHOCTM

OA noA^MpaetCfl MHAUBMAYA/ibHo cyneTOM B03pacia 6o/ibHoro, oc/io>KHeHMM Cfl, conyTCTByioiAnx 3a6o/ieBaHMM; a TaKwe nepeHOCTMMocTM

PeKOMeHAOBaHbi aapo6Hbie 4)M3MHeckMe ynpawHeHMfl npoAO/i>KMe/ibHOCTbK) 30-60 MMHyT, npeAHOHTme/ibHO eweAHeBHO, HO He MeHee 3 pa3 B HeAe/iio. CyMMapHas npoAO/i>KMe/ibHOCTb - He MeHee 150 MMHyT B HeAe/iK).

y 6o/ibHbix Cfl 2 TMna, no/iynaKDLAMx MHcy/iMH  $M/IM$  nepopa/ibHbie caxapochMMOJOiAMe npenapaTbi, CTHMy/iMpyKDiAMe ceKpey,Mfo MHcy/iMHa, OA MOWeT Bbl3BaTb TMnor/IMKeMMK).



# PGKOMGHAaUMM nO <j)M3MMGCKOM

## aKTMBHOCTM

Pcry/iapHafI OA npn Cfl 2 Tuna y/iynwaGT KOMriGHcaunK) ymeBOAHoro o6MGHa, noMoraET CHM3MTb  
M noAAepwaTb Maccy *iena*, yMGHbiiiMTb MHcy/IMHOpg3MCTGHTHOCTb, CTGnGHb a6AOMMHa/lbHOro  
O>KMpeHMfl, cnoco6cTByGT y/iyniueHHK) f\vcn\l\Af\leN\l\l, noBbiweHMK) cepAeHHO-COCyAMCTOM  
TpGHMpOBaHHOCTM

OA noASupaeTca MHAUBMAYA/ibHo c yneTOM B03pacia 6o/ibHoro, OC/10>KHGHMM Cfl,

COHyTCTByHDIAMX 3a6o/LGBaHMM, a TaKM<G nGpGHOCMMOCTW

PGKOMeHAOBaHbi aapo6Hbie (J)M3MHeckMe ynpawHGHMfl

np0AO/l>KMT6/lbHOCTbK) 30-60 MMHyT, npGAnOHTMTG/lbHO 6>K6AHGBHO, HO  
HG MeHee 3 pa3 B HGAE/iio. Cy/viMapHaa npoAO/i>KMTe/ibHocTb - He MGHGG 150  
MMHyT B HGAE/lK).

y 6o/ibHbix Cfl 2 Tuna, no/iynajOLAHx MHcy/iMH v\lv\ nepopa/ibHbiG

caxapochMMOfoiAMG npcnapaTbi, CTMMY/iMpyfoiAMG CGKPGU, MK) MHcy/iMHa,  
<PA MOWeT Bbl3BaTb THnor/IMKeMHK).

# MefIMKaMeHT03HafI Teparma caxapHoro AMa6eia II Tuna rpyhbi caxapocHMmatou^MX npenapaTOB M

## MexaHM3M MX ^8MCTBMB

Труна npenapaTOB	MeXaHH3M fleMCTBMB
npenapaTbi cy/ib<t>aHM/iMOHeBMHbi	<ul style="list-style-type: none"><li>CTMMY/IflAMfl CeKpeUMM MHCY/IMHa</li></ul>
DIHHMabi	<ul style="list-style-type: none"><li>CTMMY/IflAMfl CeKpei4MH MHCY/IMHa</li></ul>
BuryaHMabi	<ul style="list-style-type: none"><li>CHMweHne nnoAyKunn r/ii0K03bi neneHbk)</li><li>CHMweHMe MHCY/IMHOpe3MCTeHTHOCTM MbioJemHOM M WmpOBOM TK3HM</li></ul>
Tna30/niAHHAH0Hbi (I7ima30Hbi)	<ul style="list-style-type: none"><li>CHMweHMe MHCY/IMHOpe3MCTeHTHOCTM MbioJemHOM M WmpOBOM TK3HM</li><li>CHMweHMe nnoAyKunn MK)K03bi neneHbio</li></ul>
MHrn6nTopbi a/ib<J)a-mK)K03MAa3	<ul style="list-style-type: none"><li>BaMeA/ieHne BcabcisaHMfl yr/ieBOAOB s KmueHHMKe</li></ul>
ApoHMCTbi peuemopoB ryiK>KaroHonoAo6Horo neriTMAa-1 (apnn-i)	<ul style="list-style-type: none"><li>r/IJKK0303aBMCHMa« CTMMY/IHLIMH CeKpeiJMM MHCY/IMHa</li><li>rnK5K0303a8MCHMoe CHumeHne ceKpeuMM r/iKwaroHa M yweHbieHMe nnoAyKunn r/if0K03bi neHeHbk?</li><li>BaMeA^eHne onopowHeHna &gt;ne/iyAKa</li><li>yMeHbieHMe noipe6/ieHnn nMW,M</li><li>CHMweHMe <b>Macabi</b> Te/ia</li></ul>
HHrn6nTopbi AnnentMAH^nenTMAa3bi 4 (Mflfin 4)	<ul style="list-style-type: none"><li>r/iK3K0303aBMCHMaa CTUMY/IflAMfl cenpeuMn MHCY/iMHa</li><li>r^»0K0303aBMCHM0e CHHwemie cewpeAMM r/ucwaroHa</li><li>yMeHbieHMe nnoAYKUMM r/iK&gt;K03bi neHeHbto</li><li>He Bbi3bieaK&gt;T 3aMeA/ieHMH onopo&gt;KHeHMfl &gt;ne/iyAKa</li><li>HeMTPa/ibHoe aGMCTBMG Ha Maccy Te/ia</li></ul>

ripenapaTbi cy/ib<J>oHM/iMOMeBMHbi

- **1 noKO/ieHkie - Kap6yTaMMfl, TO/i6yTaMM,a,**
- 2 noKO/ieHMe - i7iM6eHK/iaMM/],,, MMKBMAOH, rviMnM3MA, mnK/ia3M/],
- 3 noKO/ieHne - r/iMMenepufl

ripenapaTbi 2, 3 reHepau,nn o6/ia,qaiOT 6O/ibweM 4)apMaKO/],MHaMMHeCKOKi aKTMBHOCTbtO M MeHblUefi TOKCH4HOCTbHD. Bo/lblUMHCTBO M3 HMX o6/iaflaiOT yMepeHHbIM aHrMonpOTeKTMBHbiM fleMCTBMeM (y/v\ehbiuaioT arperau,Mio TpOM6oU,MTOB M npOHMU,aeMOCTb COCyqMCTOM CTeHKM) M CHMXOIoT KOHy,eHTpai4MK) XO/ieCTepMHa B KpOBH. HeoBxOfIMMO OTMeTMTb, MTO pa3BMBaiOIHafICfl y 6o/lbHbIX pe3MCTeHTHOCTb K npenapaTa/vt nepBopo m BTopopo noKO/ieHMM nepeKpecmafl.