

# AKUTNE GLAVOBOLJE

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УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ  
UNIVERSITY OF BANJA LUKA

Gradiška, 26.06.2020. god.

Project number: 585927-EPP-1-2017-1-RS-EPPKA2-CBHE-JP (2017 – 3109 / 001 – 001)

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# GLAVOBOLJA

- Jedan od najčešćih simptoma u medicini uopšte (kao vodeći ili jedan od simptoma bolesti)
- Jedan od najčešćih razlog dolaska bolesnika kod porodičnog ljekara

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## International Headache Society

- International Headache Society [www.ihs-headache.org](http://www.ihs-headache.org)
- „The International Classification of Headache Disorders, 3rd edition“
- Nacionalno udruženje za glavobolje Srbije [www.nugs.rs](http://www.nugs.rs)

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# Međunarodna klasifikacija glavobolja MKB-3 2018.

## I Primarne glavobolje

1. Migrena
2. Trigeminalno autonomne glavobolje (TAG)
3. Glavobolja tenzionog tipa
4. Ostale primarne glavobolje

## II Sekundarne glavobolje

## III Bolne kranijalne neuropatije i ostali bolovi lica

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# AKUTNE GLAVOBOLJE

- Migrena
- Kluster glavobolja
- Spontana subarahnoidalna hemoragija (SAH)
- Ostale akutne glavobolje (infekcije CNS-a, traume glave, akutni napad glaukoma...

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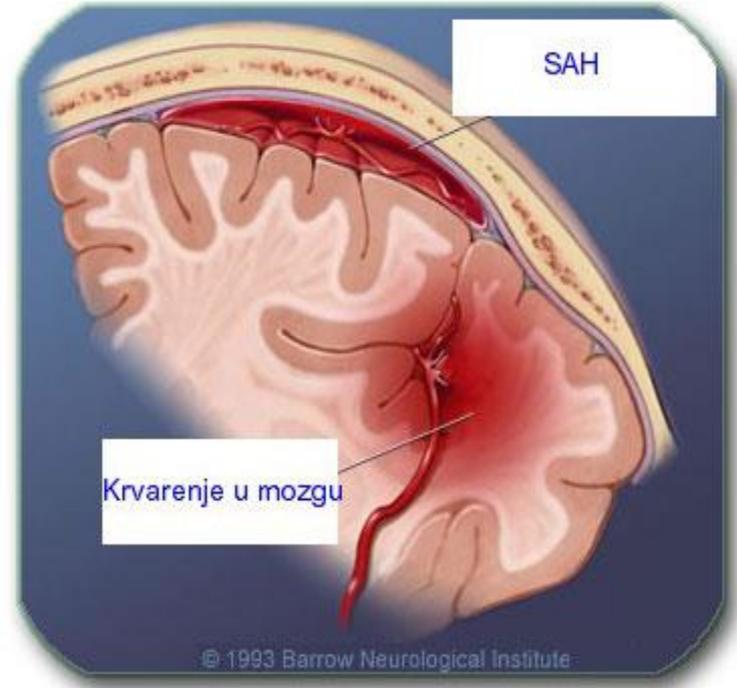
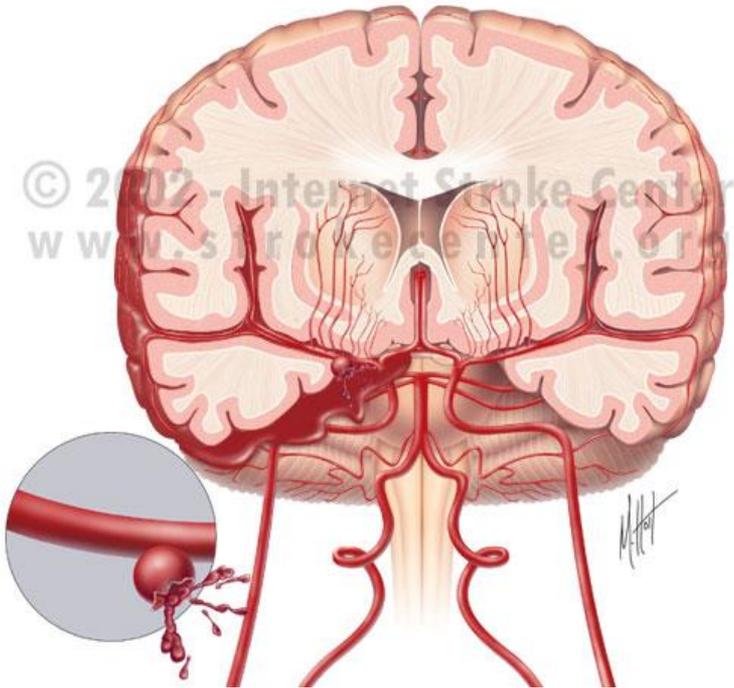
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# SUBARAHNOIDALNA HEMORAGIJA - SAH

Spontana subarahnoidalna hemoragija (SAH) spada u grupu intrakranijalnih hemoragija koje se karakterišu prisustvom krvi u subarahnoidalnom prostoru.

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# SUBARAHNOIDALNA HEMORAGIJA - SAH

- Incidencija 2-22/100000 stanovnika
- Češće se javlja kod žena (1,6 žena:1 muškarac)
- Najčešće se manifestuje u šestoj deceniji života

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## SAH – Faktori rizika

- Arterijska hipertenzija
- Pušenje
- Životna dob
- Pol
- Nasleđe (prisustvo intrakranijalne aneurizme kod najbližih rođaka, neke nasljedne bolesti, npr. policistični bubrezi, Marfanov sindrom, fibromuskularna displazija...

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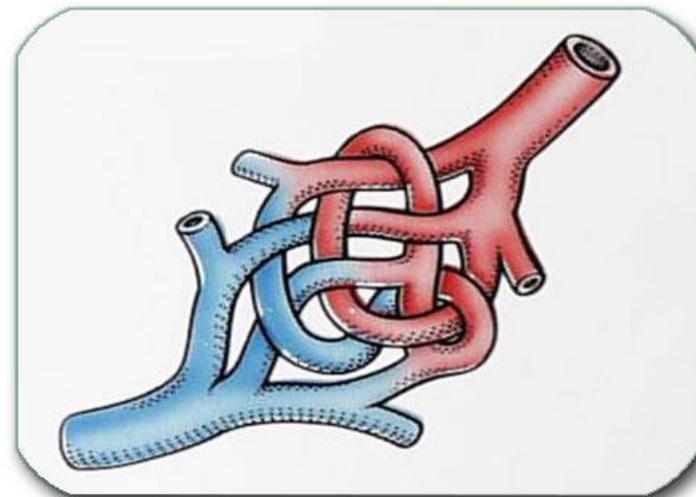
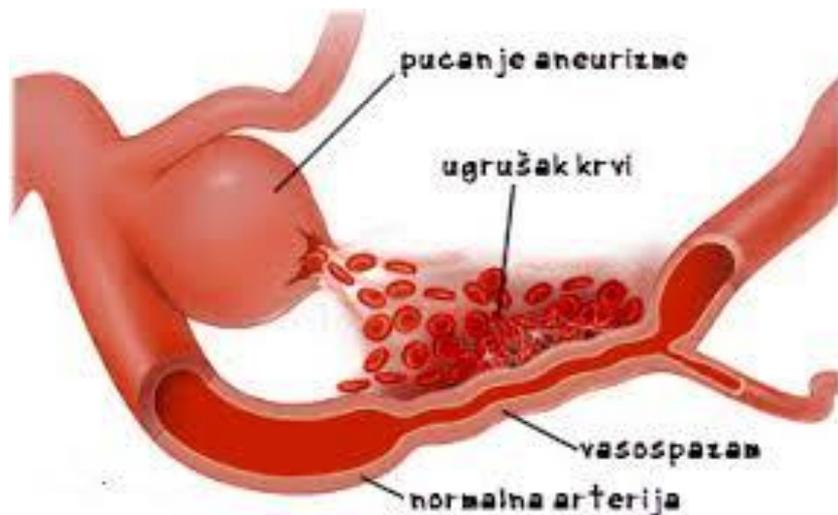
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## SAH – Etiologija

- **Aneurizma intrakranijalnog krvnog suda – 80% bolesnika (urođena ili stečena)**
- Arterijsko-venske malformacije (AV malformacije)
- Poremećaj koagulacije
- Tumor mozga
- Vaskulitis
- Infekcije centralnog nervnog sistema
- Zloupotreba kokaina
- Nepoznat uzrok

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## SAH – Klinička slika

- **Glavobolja** - najvažniji simptom, naglo, poput „udara groma“, „kao da je nešto puklo u glavi“, „najjača od svih do tada doživljenih glavobolja.“
- Difuzan bol ili najizraženiji u vratno-potiljačnoj regiji
- Kod 40% bolesnika glavobolja može biti jedini simptom bolesti

## SAH – Klinička slika

- **Poremećaj stanja svijesti** - kod 45% bolesnika
- **Pozitivni meningealni znaci** - mogu biti negativni u prvim satima
- **Fokalni neurološki ispadi** - 10%-15% bolesnika.
- **Ostali simptomi i znaci** uključuju mučninu, povraćanje i fotofobiju, a nastaju usljed povišenja IKP.

## SAH – Dijagnostički postupak

- **1. CT mozga – pozitivan** kod 90%-95% bolesnika
- **2. Lumbalna punkcija** – ukoliko je CT nalaz negativan, pouzdanija je za dg, ali ne daje podatke o lokalizaciji rupturirane aneurizme.  
U prvim satima nalaz može biti lažno negativan.
- **3. Angiografski pregled krvnih sudova mozga**  
Digitalna substrakciona angiografija (DSA) ili  
CT angiografija.  
Kod 20-25% bolesnika angiografijom se ne nađe uzrok krvarenja.



CT mozga



Lumbalna punkcija



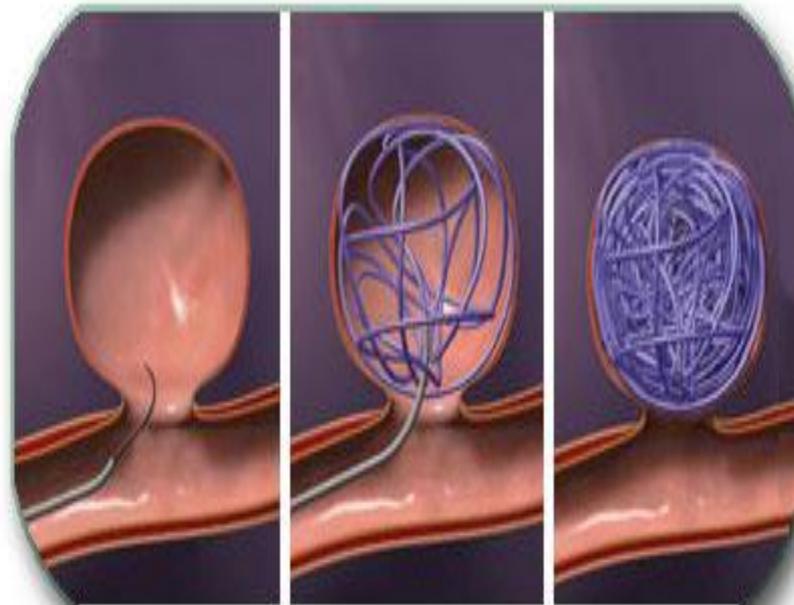
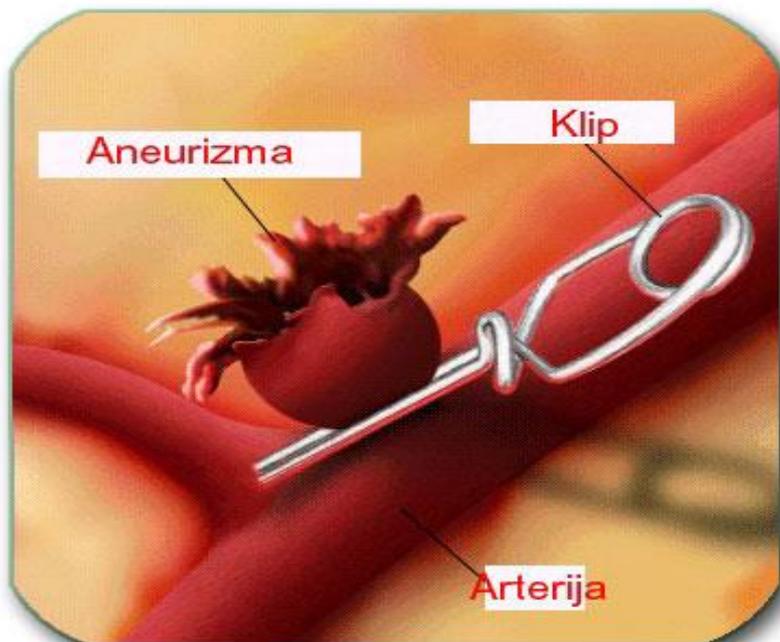
Digitalna substrakciona  
angiografija

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## SAH – Liječenje

- **Opšte mjere** (strogo mirovanje, obezbijediti vitalne funkcije, analgetika, sedativa)
- **Liječenje aneurizme**
  1. **Hiruško** - najčešće
  2. Endovaskularno (u aneurizmu se plasiraju mikrospirale koje pokreću trombozu i obliteraciju aneurizme)
- Najbolji rezultati u prva 72 sata nakon nastanka krvarenja, ili nakon tri nedelje kada prođe vazospazam



Postavljanje klipsa na vrat aneurizme

Punjenje aneurizme žicom „coiling“

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## SAH – Komplikacije

- **Ponovljeno krvarenje** - kod 7% bolesnika, mortalitet 78-90%  
Najčešće od 5-9 dana
- **Simptomatski vazospazam krvnih sudova** – od 3.-21. dana  
(„odložena ishemija“, fokalni ispadi...), antagonisti Ca u terapiji
- **Hidrocefalus**
- **Epileptični napadi**
- **Somatske komplikacije** - plućni edem, srčane aritmije, naročito bradikardija...

## SAH – Prognoza

- **Smrtnost** iznosi oko **35%**, od čega 10-25% bolesnika umire prije dolaska u bolnicu
- Svega 1/3 preživjelih se dobro oporavi



**Sharon Stone** was hospitalized on September 29, 2001, for a subarachnoid hemorrhage, which was diagnosed as a vertebral artery dissection rather than the more common ruptured aneurysm, and treated with an endovascular coil embolization

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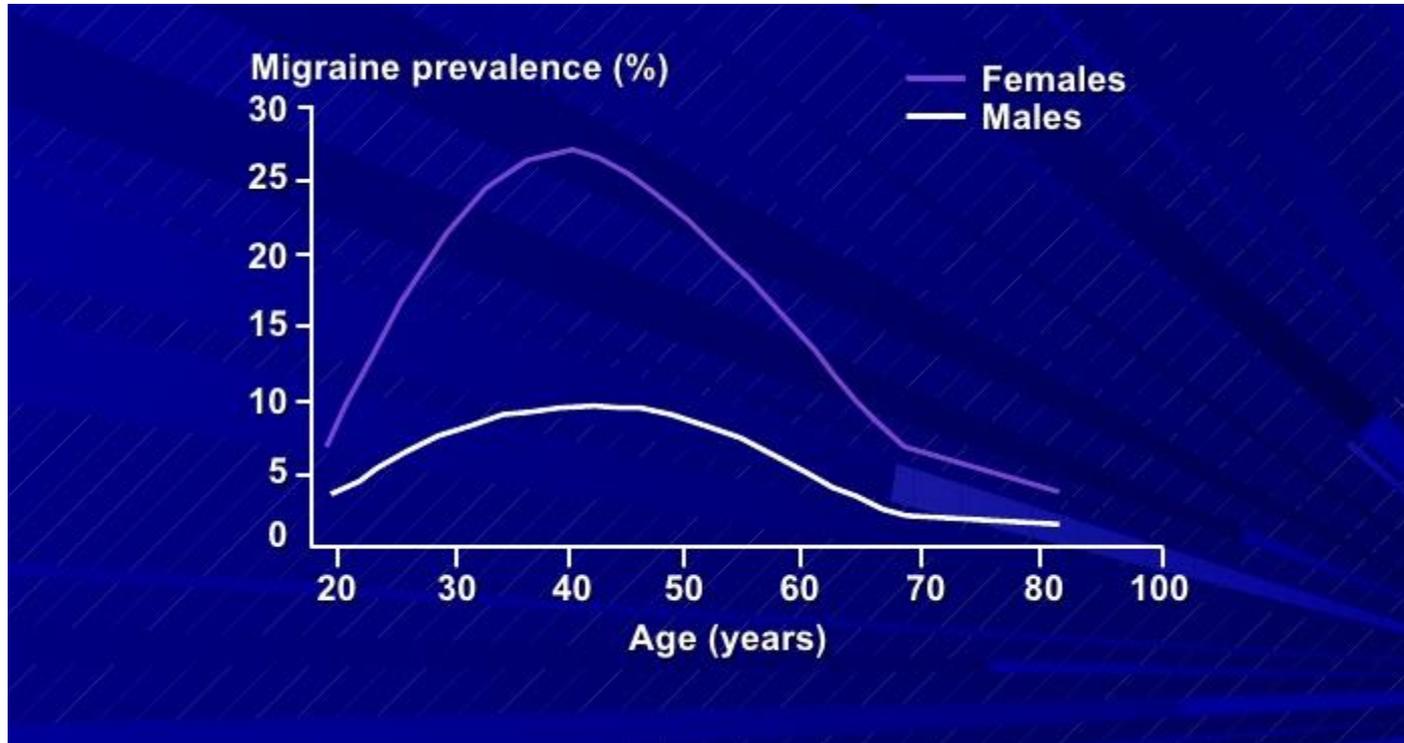
# MIGRENA

- Migrena je hronična bolest koju karakterišu ataci glavobolje.
- Prevalencija oko 10% (žene 15%-18%, muškarci 5%-6%).
- Za vrijeme napada više od 50% bolesnika mora da provede u krevetu.
- Kod više od 80% bolesnika se javi prije 40. godine života.

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# Migrena – Epidemiologija



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# MIGRENA

- Težina i učestalost napada migrene bitno se razlikuje od bolesnika do bolesnika, ali i tokom života kod istog bolesnika.
- Ako se prvi napad javi poslije 40. godine neophodno je isključiti druge uzroke glavobolje.

# MIGRENA

- Kod žena u reproduktivnom periodu napadi se grupišu i intezivniji su u periodu oko i tokom menstrualnih ciklusa.
- Većina bolesnica nema napade tokom trudnoće.
- U fiziološkoj menopauzi napadi se prorijede, a kod menopaze nakon hirurške intervencije učestaju.

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# Migrena – provokativni faktori

- Menstruacija
- Zamor
- Putovanje
- Relaksacija nakon stresa
- Jaka svjetla, diskoteke
- Previše ili premalo spavanja
- Preskakanje obroka
- Neke vrste hrane ili pića (sir, čokolada, crno vino).

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## Migrena MKB-3

- Migrena bez aure
- Migrena sa aurom
- Hronična migrena
- Komplikacije migrene
- Vjerovatna migrena
- Epizodični sindromi koji mogu da budu udruženi sa migrenom

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# Migrena – napad u kliničkoj praksi

- „**Prodromalna faza**“ (depresija ili euforija, uznemirenost, pretjerano zijevanje, žeđ, zamor, pospanost, želja za posebnom hranom...).
- **Bol** je obično jednostran, najjači supraorbitalno ili temporalno, ali može od početka ili tokom napada da zahvati celu glavu, **traje 4-72 sata**, često je praćen mučninom, povraćanjem, foto i fonofobijom
- **Nakon napada** bolesnik je obično iscrpljen i bezvoljan („migrenski mamurluk“), a vrlo rijetko euforičan i svjež.
- **Status migrenosus** – napad traje duže od 3 dana ili serija napada između kojih se registruje samo blago poboljšanje (hospitalizacija)



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# Migrena bez aure – MKB-3

- A. Najmanje pet ataka, koji ispunjavaju kriterijume B-D
- B. napadi glavobolje trajanja 4-72 sata (neliječeni ili neuspješno liječeni)
- C. Glavobolja ima bar dvije od navedene četiri karakteristike:
  - jednostrana lokalizacija
  - pulsirajući kvalitet
  - umjeren ili jak intenzitet bola
  - pogoršava se pri rutinskim fizičkim aktivnostima
- D. Tokom glavobolje bar jedno od navedenog:
  - mučnina i/ili povraćanje
  - fotofobija i fonofobija
- E. Ne može se bolje objasniti nijednom drugom dijagnozom MKB-3

## Migrena sa aurom – MKB-3

- Aura se javlja prije ili uporedo sa glavoboljom koja je ista kao kod migrene bez aure
- Aura se ne mora javiti prije svakog napada.
- Aura nastaje tokom 5-20 minuta i traje < 60 minuta.
- Glavobolja nastaje u roku od 60 minuta od aure, ali može da počne prije i istovremeno sa aurom.
- Rjeđe se javlja samo aura, dok glavobolja izostaje.

## Migrena sa aurom – MKB-3

- **Vidni simptomi** su najčešći: scintilirajući skotom, svijetla lopta u sredini vidnog polja, multipla svjetlucanja ili bljeskovi u vidnom polju, izmijenjeni oblici predmeta.
- **Senzorni poremećaji** (utrnulost, mravinjanje ili parestezije), prvenstveno lica i ruke
- **Motorni poremećaji** (hemipareza ili disfazija su dio hemiplegične migrene, simptomi traju satima ili rijetko, danima) Javlja se sporadično ili kao nasljedna forma.
- **Otežan govor i drugi fokalni tranzitorni simptomi.**

## Migrena sa aurom – vizuelni simptomi



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# Dijagnoza migrene

- Dijagnoza migrene je **klinička!**
- Ako u trenutku pregleda bolesnik nema auru ili znake komplikacija migrene neurološki nalaz je normalan
- Voditi dnevnik glavobolje – značaj za dijagnozu i praćenje bolesti (Web-site NUGS)

# Dijagnoza migrene



**William Osler (1849.-1919.)**

**„LISTEN TO THE PATIENT: HE IS TELLING YOU THE DIAGNOSIS.“**

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## Opresz u dijagnozi migrene



- Ako se bolovi jave iza 40. godine
- Svakodnevna „migrena“ nije migrena
- Promjena tipa glavobolje (udruženost sec. glavobolje...)
- Ako napadi nikada ne mijenjaju stranu (aneurizma?...)
- Može da se javi u području lica „facijalna migrena“ i obično se dijagnostikuje kao sinusitis (90% bolesnika sa ponavljanom „sinusnom glavoboljom“ ispunjava kriterije za migrenu)

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## Oprez u dijagnozi migrene sa aurom



- Aura obično traje do sat vremena, ali motorni simptomi mogu trajati duže
- Iza aure se obično javi glavobolja
- Ukoliko iza aure izostane glavobolja, dif dg. dolazi u obzir TIA

## Liječenje migrene

Objasniti bolesniku o kakvom se poremećaju radi.

Izbjegavati provokativne faktore.

Terapiju početi što ranije, dok intezitet bola još nije visok.

Ukoliko glavobolja brzo dostigne vrhunac, i ako se javi rano povraćanje, primijeniti parenteralnu terapiju.

## Liječenje akutnog napada migrene

- **Blaga ili umjerena glavobolja:** klasični neopioidni anagetiци: ASK, paracetamol, NSAIL (ibuprofen, diklofenak, naproksen, COX2 inhibitori) i kombinovani analgetici.
- **Snažni atak migrene:** triptani s.c. ili intranazalno.
- **Migrenski status:** infuzije kortikosteroida ili dihidroergotamina tokom nekoliko uzastopnih dana.
- **Antiemetik** - veća efikasnost th (gastropareza tokom napada)

# Profilaksa migrene

- Česti, snažni, dugotrajni ili onesposobljavajući napadi bola sa slabim odgovorom na liječenje
- Beta blokatori (propranolol), antidepresivi (amitriptilin) i antagonisti kalcijuma tokom 6 do 12 mjeseci.

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## Zolmitriptan u liječenju migrene

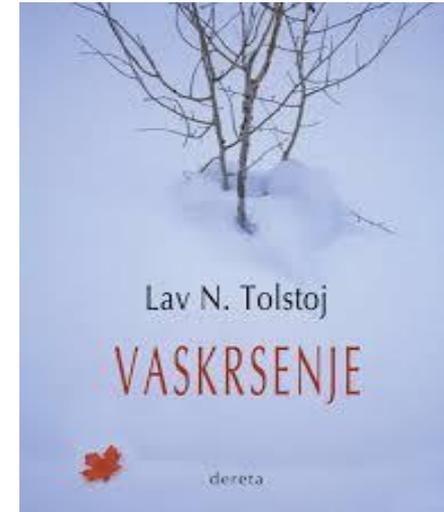
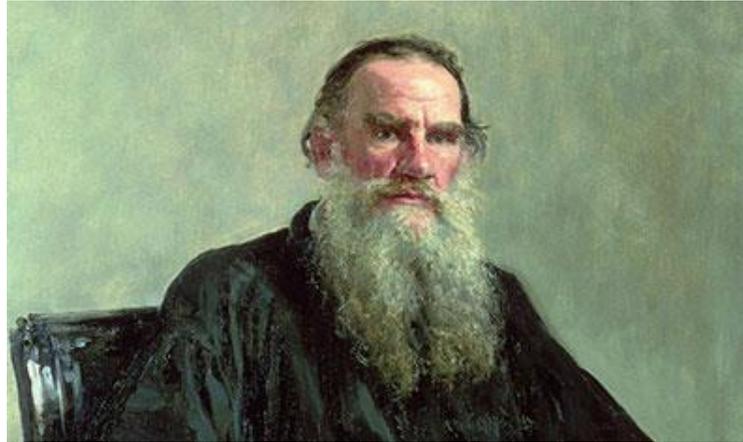
- Preporučena doza je 2,5 mg, maksimalno 10 mg/24h.
- Ako simptomi perzistiraju ili se ponovo jave unutar 24 h od primjene lijeka, uzima se **druga doza, ali tek nakon 2h od uzimanja prve doze**
- Oralne disperzibilne tablete (ODP) su pogodne u slučajevima kada voda nije dostupna.

# Kontraindikacije za primjenu zolmitriptana

- Mlađi od 18 i stariji od 65 godina.
- Trudnoća, dojenje
- Neregulisana hipertenzija, srčani udar, angina pectoris, bolesti perif. arterija
- Moždani udar
- Ne koristiti istovremeno sa drugim triptanima, lijekovima koji sadrže ergotamin ili metisergid (sačekati da prođe najmanje 24 sata)
- Hemiplegična migrena, migrena sa aurom moždanog stabla
- Oprez kod rukovanja mašinama i sa vožnjom sat vremena nakon upotrebe triptana (moguća pospanost)...

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## KLUSTER GLAVOBOLJA

- Klaster glavobolja (engl. *cluster*) je primarna glavobolja iz grupe trigeminalno-autonomnih glavobolja (TAG) i može dati najteže bolove koje čovjek može da doživi („samoubilačka glavobolja“).
- Iako je klinička slika dobro poznata, kriteriji za dijagnozu dobro definisani (MKG-3), često se dijagnoza ne postavi na vrijeme i ne liječi adekvatno.
- U prosjeku je neophodno 5,8 godina od početka smetnji do postavljanja dijagnoze.

## Kluster glavobolja – patofiziološke promjene

- Patofiziološke promjene nisu dobro poznate.
- Relapsno-remitentna, sezonska pojava bola ukazuje na uključenost biološkog sata, odnosno hipotalamusa.
- Nastanku bola doprinosi i patološka hipersenzitivnost, prevashodno trigemino-talamičkih projekcionih puteva.

# Kluster glavobolja – kliničko ispoljavanje

- **Dnevna i godišnja periodičnost napada**
- **Epizodična forma** (90% bolesnika): napadi traju 6-12 nedelja, a remisija nekoliko mjeseci do nekoliko godina.
- Klaster periodi - obično u isto vrijeme tokom godine.
- **Hronična forma** (10% bolesnika) – nema remisija ili su kratke (< 30 dana), traje najmanje godinu dana. Nastaje iz epizodične forme ili je od početka hr. forma



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# Kluster glavobolja – MKB-3 kriterijumi za dijagnozu

- A. Najmanje 5 napada koji ispunjavaju kriterijume B–D
- B. Jak jednostrani orbitalni, supraorbitalni i/ili temporalni bol koji, kad nije liječen, traje 15–180 minuta
- C. Prisutan jedan ili oba znaka od sledećih:
  - 1. najmanje jedan od sledećih znakova na strani bola:
    - a. hiperemija konjunktive i/ili pojačano suzenje
    - b. nazalna kongestija i/ili rinoreja
    - c. edem kapka
    - d. preznojavanje poglavine i lica
    - e. mioza i/ili ptoza
  - 2. osjećaj motornog nemira ili agitacije
- D. Učestalost napada od 1 na drugi dan do 8 dnevno
- E. Tegobe nisu posljedica druge bolesti



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## Kluster glavobolja – liječenje akutnog bola

- Brzo dostizanje vrhunca bola zahtijeva i brzo davanje terapije koja će odmah djelovati.
- Prva činija liječanja: sumatriptan SC, inhalacija kiseonika.
- Ostali lijekovi: ergot derivati i lidokain intranazalno

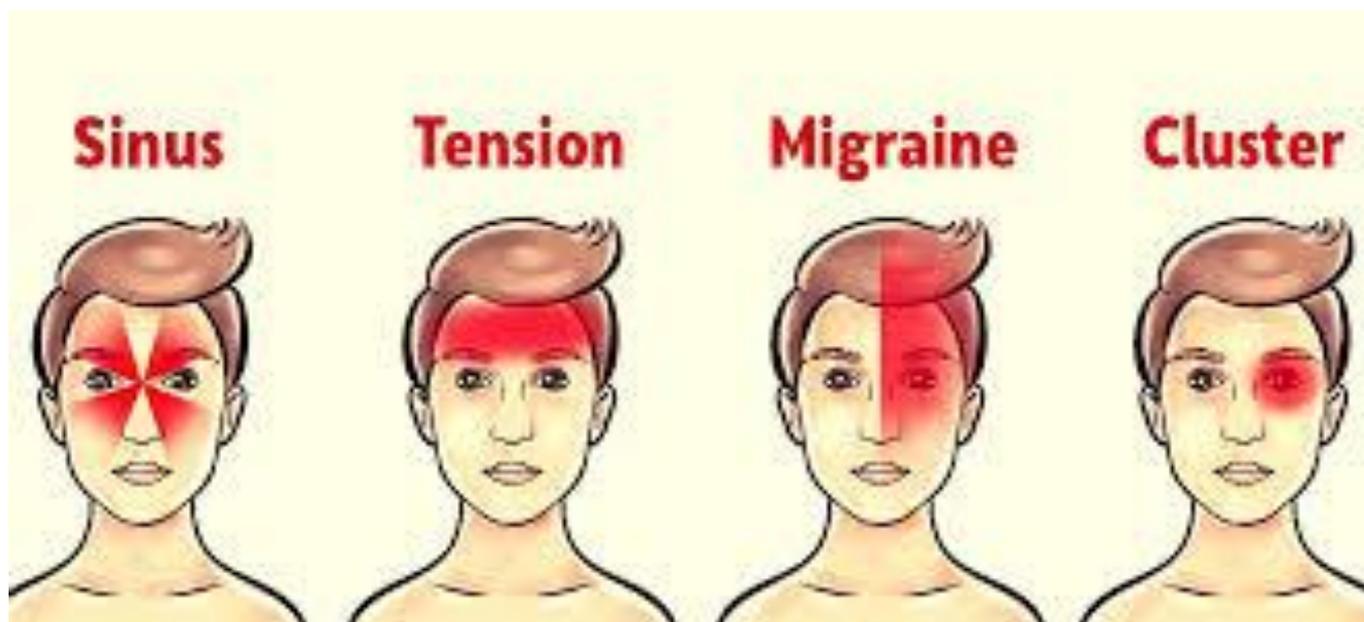


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# Kluster glavobolja – profilaksa

- Kod bolesnika sa čestim i snažnim atacima bola
- Verapamil – lijek izbora, uz kontrolu EKG-a, 240-960 mg na dan, podijeljeno u tri doze.
- Prednizolon 1 mg/kg tj. težine 5-10 dana, uz postepeno smanjenje doze do isključenja.
- Verapamil + kortikosteroidi, doza verapamila može biti manja od uobičajene



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**Hvala na pažnji!**

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