

*Mrežnica, Friday, May 16 2025, 8:00-9:00*

*Location: dvorana Grandis*

**Session: Mrežnica / Retina**

**Chairs:** Polona Jaki Mekjavić and Ivana Gardašević Topčić

OR-027

**Indications for laser therapy of peripheral pathological changes in the retina**

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Purpose: presentation of a lower incidence of rhegmatogenous retinal detachment or progression of retinoschisis after laser treatment.

Methods: our experience and data from the literature about chorioretinal laser photocoagulation due to retinal tears and foramen, palisade, snail track, and retinal tuft degenerations and degenerative retinoschisis.

Results: In the case of symptomatic horseshoe tear, traumatic tear, or dialysis without or with minor surrounding retinal detachment, laser intervention is urgently required. It is also performed for older tears or peripheral retinal foramen with raised edges or local retinal detachment. Peripheral retinal foramen and asymptomatic horseshoe retinal tear with surrounding pigment and/or a lying edge are not indications for treatment. Palisade degeneration without or with peripheral or atrophic retinal foramen is rarely the cause of rhegmatogenous retinal detachment after vitreous detachment. Laser treatment is only necessary in cases of severe vitreous traction. Snail track and cystic or zonular retinal tuft degeneration have a low incidence of rhegmatogenous retinal detachment in vitreous detachment, and laser treatment in these cases is performed similarly to palisade degeneration. High myopia, Marfan, Stickler, or Ehlers-Danlos syndrome, familial predisposition to retinal detachment, and horseshoe tear or rhegmatogenous retinal detachment in the other eye are additional risk factors for rhegmatogenous retinal detachment, which is why laser treatment must be performed in the case of the aforementioned degenerations. Similarly, it is performed in these cases before cataract surgery and for some other procedures in the anterior segment of the eye. In the rest of the population, laser treatment does not reduce the possibility of retinal detachment in the months following surgery. Laser treatment in degenerative retinoschisis does not stop the progression of the disease. If it extends near the retinal vascular arches, a marking edge is made to assess the progression of the disease. Other degenerative changes in the retina (white-without-pressure, white-with-pressure, snowflake, pearl, and paving stone degeneration) are not an indication for preventive laser treatment.

Conclusion: The indication for laser intervention in the aforementioned retinal changes varies depending on the type of disease and additional risk factors. Before referring for laser treatment, a detailed history and examination of the fundus are required, and recommendations must be followed.

**Indikacije za lasersko terapijo perifernih patoloških sprememb v mrežnici**

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Namen: predstavitev manjše incidence regmatogenega odstopa mrežnice oziroma napredovanja retinoshize po laserskem zdravljenju.

Metode: naše izkušnje in podatki iz literature o laserski fotokoagulaciji horioretine zaradi raztrganin in foramnov mrežnice, palisadnih, snail track in retinal tuft degeneracij ter degenerativnih retinoshiz.

Rezultati: pri simptomatski podkvasti rupturi, travmatski rupturi ali dializi brez ali z manjšim okolnim dvigom mrežnice je potrebno nujno opraviti laserski poseg. Opravimo ga tudi pri starejši rupturi ali periferneh foramnu mrežnice s privzdignjenimi robovi ali lokalnim odstopom mrežnice. Periferni foramen mrežnice, asimptomatska podkvasta ruptura mrežnice z okolnim pigmentom in/ali z ležečim robom niso indikacije za poseg. Palisadna degeneracija brez ali z perifernimi ali atrofičnimi foramni mrežnice je po odstopu steklovine redko vzrok regmatogenega odstopa mrežnice. Lasersko zdravljenje je potrebno le v primeru izrazite trakcije steklovine. Snail track ter cistična ali zonularna retinal tuft degeneracija imajo pri odstopu steklovine majhno incidenco nastanka podkvaste raztrganine mrežnice in se laserski poseg v teh primerih opravi podobno kot pri palisadni degeneraciji. Visoka kratkovidnost, Marfanov, Sticklerjev ali Ehlers-Danlosov sindrom, familiarna predispozicija za odstop mrežnice in podkvasta ruptura ali regmatogeni odstop mrežnice v drugem očesu so dodatni rizični dejavniki za regmatogeni odstop mrežnice, zato moramo v primeru omenjenih degeneracij opraviti laserski poseg. Podobno ga v teh primerih opravimo tudi pred operacijo katarakte in pri nekaterih drugih posegih v sprednjem segmentu očesa. Pri ostali populaciji laserski poseg ne zmanjša možnosti odstopa mrežnice v naslednjih mesecih po operativnem posegu. Laserski poseg pri degenerativni retinoshizi ne ustavi napredovanja bolezni. Če sega v bližino žilnih lokov, naredimo markacijski rob za oceno napredovanja bolezni. Ostale degenerativne spremembe v mrežnici (white-without-pressure, white-with-pressure,

snowflake, pearl in paving stone degeneracija) niso indikacija za preventivno lasersko zdravljenje.

Zaključek: indikacija za laserski poseg pri omenjenih spremembah mrežnice je različna glede na vrsto obolenja in do-datne rizične dejavnike. Pred napotitvijo na laserski poseg je potrebna natančna anamneza in pregled očesnega ozadja ter upoštevanje priporočil.