

UNIVERZITET U SARAJEVU – VETERINARSKI FAKULTET



**Farmakološki pristupi u menadžmentu hronične boli kod
starijih pasa**

Završni rad

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**Pharmacological approaches in the management of chronic pain
in older dogs**

Diploma thesis

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Sažetak

Ovaj rad obuhvata tematiku procjene, patofiziologije i farmakološkog liječenja boli kod životinja, s posebnim naglaskom na degenerativna oboljenja zglobova poput osteoartritisa (OA) i bolesti intervertebralnog diska (IVDD). Kroz rad su obrađeni ključni mehanizmi prijenosa nociceptivnih signala, uloga centralnog i perifernog nervnog sistema, te medijatori i receptori (uključujući NMDA i opioidne receptore). Također, prikazane su standardizirane skale za procjenu boli kod kućnih ljubimaca (poput CMPS, VAS i NRS skala) te modaliteti liječenja primjenom nesteroidnih protuupalnih lijekova (NSAID), opioda, inhibitora ponovne pohrane monoamina i drugih farmakoterapijskih pristupe uključujući peroralne i intravensku, te kontinuiranu infuzijsku terapiju. Poseban naglasak stavljen je na važnost razumijevanja boli u cilju poboljšanja kvalitete života pacijenata i njihovih vlasnika, kao i na podizanja svijesti i kontinuirane edukacije u veterinarskoj praksi. Istaknuta je i važnost razvoja lokalnih terapijskih pristupa kao naprednog pristupa u liječenju hronične boli radi veće terapijske efikasnosti i smanjenja neželjenih efekata.

Summary

This work covers the assessment, pathophysiology, and pharmacological management of pain in animals, with a particular focus on degenerative joint diseases such as osteoarthritis (OA) and intervertebral disc disease (IVDD). The paper examines key mechanisms of nociceptive signal transmission, the role of the central and peripheral nervous systems, and the mediators and receptors involved in pain perception, including NMDA and opioid receptors. Furthermore, standardized pain assessment scales for pets (including CMPS, VAS, and NRS scales) are outlined, alongside treatment modalities utilizing nonsteroidal anti-inflammatory drugs (NSAIDs), opioids, monoamine reuptake inhibitors, and other pharmacotherapeutic approaches administered orally, intravenously, or by continuous rate infusion (CRI) routes. A special emphasis is placed on the significance of understanding and appropriately assessing pain to improve the quality of life of both patients and their owners, as well as raising awareness and promoting education in veterinary practice. Additionally, the paper highlights the importance of developing local approaches for chronic pain management to achieve greater therapeutic efficacy and minimize adverse effects

