

UNIVERZITET U SARAJEVU - VETERINARSKI FAKULTET



Endokrini uzroci alopecije pasa

Završni rad

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Endocrine causes of alopecia in dogs

Diploma Thesis

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SAŽETAK

U veterinarskoj medicini endokrini poremećaji predstavljaju čestu i kompleksnu pozadinu dermatoloških problema kod pasa. Alopecija se definira kao djelomični ili potpuni gubitak dlake na regijama tijela gdje je ona fiziološki prisutna. Kod pasa rast dlake je cikličan proces koji u velikoj mjeri kontrolišu hormoni. Oni djeluju kao primarni regulatori prelaska folikula iz anagene (faze rasta) u telogenu (fazu mirovanja). Svaka promjena u ciklusu dlake odrazit će se na krznu. Bilo kakvo narušavanje hormonalne ravnoteže prekida normalan ciklus dlake i dovodi do zadržavanja folikula u telogenoj fazi, čime se onemogućava formiranje nove dlake. Kako stara dlaka s vremenom ispada zbog mehaničkog trošenja, razvija se progresivna, obostrano simetrična alopecija koja zahvata vrat, trup i rep, dok su glava i distalni dijelovi ekstremiteta uglavnom pošteđeni. Cilj ovog rada je detaljno analizirati endokrine uzroke alopecije kod pasa, s fokusom na patofiziološke mehanizme putem kojih hormoni kontroliraju razvoj folikula i ciklus rasta dlake. Kliničke karakteristike zajedničke za većinu endokrinih alopecija obuhvataju promjenu kvaliteta preostalog krzna. Dakle, dlaka postaje suha, lomljiva, gubi sjaj i lako se čupa. Također, javlja se hiperpigmentacija i hipotonija kože, uz karakterističan izostanak pruritusa i upalnih reakcija, osim u slučajevima sekundarnih bakterijskih ili gljivičnih infekcija. U radu su detaljno obrađene najčešće endokrinopatije sa dermatološkim manifestacijama. Kod hipotireoze, deficit tiroidnih hormona usporava ćelijski metabolizam i uzrokuje zastoj u telogenoj fazi. Hiperadrenokorticism (Cushingov sindrom) dovodi do atrofije kože i folikula uslijed hronične izloženosti povišenim koncentracijama kortizola. Pored toga, analizirani su hiposomatotropizam, hiperestrogenizam kod ženki, tumori funkcionalnih ćelija testisa kod mužjaka koji narušavaju ravnotežu spolnih hormona, te alopecija X kao kompleksni idiopatski sindrom zastoja ciklusa dlake. Dijagnostički protokol obuhvata detaljnu anamnezu, klinički pregled i isključivanje drugih uzroka, specifične krvne testove i biopsiju kože. Liječenje ovisi o primarnom uzroku i najčešće zahtijeva doživotnu supstitucijsku terapiju, farmakološku supresiju ili hirurške zahvate kod tumorskih procesa.

Ključne riječi: alopecija, psi, endokrinopatije, hipotireoza, hiperadrenokorticism

SUMMARY

In veterinary medicine, endocrine disorders represent a frequent and complex background of dermatological problems in dogs. Alopecia is defined as a partial or complete loss of hair on regions of the body where it is physiologically present. In dogs, hair growth is a cyclic process largely controlled by hormones. They act as primary regulators of the transition of follicles from the anagen (growth phase) to the telogen (resting phase). Any change in the hair cycle will be reflected in the coat. Any disruption of hormonal balance interrupts the normal hair cycle and leads to the retention of follicles in the telogen phase, thereby preventing the formation of new hair. As the old hair falls out over time due to mechanical wear, a progressive, bilaterally symmetrical alopecia develops, affecting the neck, trunk, and tail, while the head and distal parts of the limbs are mainly spared. The aim of this paper is to thoroughly analyze the endocrine causes of alopecia in dogs, with a focus on the pathophysiological mechanisms through which hormones control hair follicle development and the hair growth cycle. Clinical characteristics common to most endocrine alopecias include a change in the quality of the remaining coat. Thus, the hair becomes dry, brittle, loses its shine, and is easily plucked. Also, hyperpigmentation and cutaneous hypotonia occur, with a characteristic absence of pruritus and inflammatory reactions, except in cases of secondary bacterial or fungal infections. The paper treats in detail the most common endocrinopathies with dermatological manifestations. In hypothyroidism, thyroid hormone deficiency slows down cellular metabolism and causes arrest in the telogen phase. Hyperadrenocorticism (Cushing's syndrome) leads to atrophy of the skin and follicles due to chronic exposure to elevated cortisol concentrations. In addition, hyposomatotropism, hyperestrogenism in females, functional testicular cell tumors in males that disrupt the balance of sex hormones, and alopecia X as a complex idiopathic syndrome of hair cycle arrest are analyzed. The diagnostic protocol includes a detailed history, clinical examination and exclusion of other causes, specific blood tests, and skin biopsy. Treatment depends on the primary cause and most often requires lifelong replacement therapy, pharmacological suppression, or surgical procedures for tumor processes.

Keywords: alopecia, dogs, endocrinopathies, hypothyroidism, hyperadrenocorticism