UNIVERZITET U SARAJEVU - VETERINARSKI FAKULTET

TERATOGENEZA U GOVEDARSTVU

Završni rad

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TERATOGENESIS IN CATTLE

Diploma Thesis

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SAŽETAK

Teratogeneza u govedarstvu obuhvata širok spektar razvojnih anomalija koje nastaju uslijed djelovanja raznih etioloških faktora u periodu embriogeneze i organogeneze. Ove malformacije mogu imati strukturni, funkcionalni ili kombinovani karakter i predstavljaju značajan uzrok gubitaka u stočarskoj proizvodnji. Cilj ovog rada je da se sistematski prikažu najčešće kongenitalne malformacije kod goveda, njihova morfološka i citogenetička obilježja, kliničke karakteristike, etiološke uzroke i posljedice po zdravlje i produktivnost jedinki. Posebna pažnja je posvećena ulozi infektivnih agenasa (virusi, bakterije, paraziti, gljivice), neinfektivnih faktora (toksične supstance, nutritivni deficit, endokrini poremećaji) te genetske predispozicije. U radu su analizirani dostupni slučajevi iz literature i prikazane makroskopske i mikroskopske promjene kod različitih anomalija kao što su hidrocefalus, rascjep nepca, brahignacija, hipoplazija pluća sa anasarkom i brojne druge razvojne mane koje mogu značajno uticati na tok i završetak graviditeta, vitalnost teladi i reproduktivnu sposobnost majki. Rezultati ukazuju da se većina ovih oboljenja javlja sporadično, ali njihova učestalost može porasti uslijed češće upotrebe određenih priplodnjaka i parenja u srdostvu. Kongenitalne mane često dovode do distocija, mrtvorođenja teladi, ekonomskog gubitka u vidu smanjene proizvodnje mlijeka i mesa, smanjene plodnosti. Ovim radom se naglašava važnost genetskog testiranja, selekcije uzgojnih grla i preventivnih mjera u cilju smanjivanja pojave teratogenih poremećaja.

SUMMARY

Teratogenesis in cattle encompasses a broad spectrum of developmental anomalies that occur as a result of various etiological factors during the periods of embryogenesis and organogenesis. These malformations may be structural, functional, or combined in nature, and represent a significant cause of losses in livestock production. The aim of this thesis is to systematically present the most common congenital malformations in cattle, their morphological and cytogenetic features, clinical characteristics, etiological causes, and consequences for the health and productivity of the animals. Special attention is devoted to the role of infectious agents (viruses, bacteria, parasites, fungi), non-infectious factors (toxic substances, nutritional deficiencies, endocrine disorders), as well as genetic predisposition. The study analyzes available cases from the literature and describes macroscopic and microscopic changes associated with various anomalies such as hydrocephalus, cleft palate, brachygnathia, pulmonary hypoplasia with anasarca, and numerous other developmental defects that may significantly affect the course and outcome of pregnancy, calf vitality, and the reproductive capacity of dams. The findings indicate that most of these disorders occur sporadically; however, their incidence may increase with the frequent use of certain sires and inbreeding. Congenital defects often lead to dystocia, stillbirths, and economic losses reflected in reduced milk and meat production and decreased fertility. This thesis emphasizes the importance of genetic testing, selection of breeding stock, and preventive measures with the aim of reducing the occurrence of teratogenic disorders.