"Melakril" preparation influence ontrade chracteristics and dermal integument of mink (mustela)

NA Slesarenko[1], VG Ostankov[1], RF Kapustin[2]*

[1]Department of Animal Anatomy, Moscow State Academy of Veterinary Medicine and Biotechnology named after K.I. Skryabin, Moscow, Russia [2]Department of Animal Morphology, Belgorod State Agricultural Academy, Maiskii Belgorodskoi oblasti, Russia

"Melakril" implantation realizes progressive morphologenesis of dermal integument, as biodermal system and rises trustworthy improvement strength and elastic-dermation characteristics of dermal tissues. On its trade-technological indices, structural appearance and methabolic activity, the dermal integument of minks, implantated by hormonal preparation "Melakril" often excel its control analogues. The thickness of epidermis of implanted animals yields to tasted ones, and that connected correlate with rising of thick-haired integument. Hide tissue of one year old age animals is characterized by denser in comparison with control one, by package of collagen fiber, but less quantity of representation of elastic component. Implantation of preparation to young minks is accompanied by rising of refraction degree of collagen and of activity its trophic and consolidation functions. Hair follicles in dermal integument of animals of tested group lie less deep (612,3±31,3 mkm) than at control one (704,0±20,8 mkm), and it prevents appearance the defect as "draught" in dressed hide of tested group rising of firm fur articles. Implantation of hormone preparation "Melakril" doesn't influence of length, thikness, and softness of hair, but it promotes to rising its density and thickness of hair integument on 7,1 thousend unites / sm^2, as well as on 1,2% of its specific weight, that improves the quality of hides. The preparation "Melakril" doesn't provoke changes in chemical composition of hides of tested animals. The use of preparation "Melakril" in fur farming industry differs by high economy expediency.

*Corresponding author
E-mail: romankapustin@mail.ru

Ultrastructural features of common sperm defects in the cane rat (*Thryonomys swinderianus*)

JT Soley[1]*, HJ Els[2]

[1]Department of Anatomy and Physiology, Faculty of Veterinary Science, University of Pretoria, South Africa, [2]Electron Microscopy Unit, Faculty of Veterinary Science, University of Pretoria, South Africa

The cane rat or grasscutter is widely distributed throughout sub-Saharan Africa and its potential for alleviating the continent's chronic protein shortage has been recognized. However, little is known about the reproductive biology of this rodent. In view of the fact that the identification of sperm abnormalities forms an important aspect of semen evaluation, this paper describes the principal sperm defects observed in cane rat semen.

Semen was collected from the ductus deferens of six healthy and sexually mature male cane rats slaughtered at the Irene Animal Production Institute, Gauteng, South Africa. The samples were fixed in 3% glutaraldehyde in 0.1 M sodium cacodylate buffer, post-fixed in similarly buffered 1% osmium tetroxide and routinely prepared for scanning (SEM) and transmission (TEM) electron microscopy.

The most obvious head defects observed were vacuolar defects, bizarre heads and variations in head shape and size. On SEM, the vacuolar defect manifested as a variable number of crater-like depressions on the surface of the sperm head. The craters were generally restricted to a band immediately beneath the caudal termination of the acrosome forming the typical "diadem" defect. On TEM the craters were seen to be confined to the nucleus and communicated with the peri-nuclear space via a narrow stalk They did not open onto the cell surface but were covered by the acrosome or post-acrosomal dense lamina. Bizarre heads took on a number of forms but characteristically were large cells with misshapen nuclei. Cane rat sperm displayed a wide variation in head shape and size. This pleomorphism made it difficult to accurately assess this anomaly. However, heads with a narrow base (pyriform/tapered heads) and those with a broad base (often associated with abaxial tail