

INFLUENCE OF CASTRATION ON THE GENITAL TRACT IN THE SAHARAN GERBIL (*GERB/LLUS TARABULI*)

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The nocturnal gerbil (*Gerbillus tarabuli*) live trapped in Beni Abbes area (Wilaya of Bechar, Algeria; 30° 7'N, 2° 10'W) in Sahara desert, has a maximal sexual activity in spring and early summer. Castration, carried out during the breeding season, induced significant changes in the male genital tract.

Proximal and distal epididymis, ductus deferens and seminal vesicles weights regressed significantly (respectively -66,7% $P < 0,001$; -83,6% $P < 0,001$; -41,6% $0,01 < P < 0,05$; -90,7% $0,001 < P < 0,01$) after 50 days of castration and were restored after injection with 75µg enanthate of testosterone during 7 days .

Seminal vesicles are characterized by well developed fibromuscular tunic and important epithelial folds with high cells and secretion in the lumen; after 50 days of castration there were fewer folds, the epithelium cells supranuclear zona is reduced and we don't observe any product in the lumen while secretion disappeared; in testosterone treated animals, cells clearly showed a reactivation with the increase of the supranuclear zona of cells.

Seminal vesicles proteins (SVPs) synthesis and secretion (assessed by a Mono-Dimensional Polyacrylamide Gel Electrophoresis), showed some major proteins which disappear after castration and some others which appeared after treatment by testosterone.

These results confirm the androgeno-dependence of the seasonal variations of morphology and function of male tract in this desert rodent.