Phimosis in male dromedary camels: clinical findings and changes in the hemogram, nitric oxide metabolites and testosterone concentrations

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Abstract:

The objectives of this study were to elucidate the clinical findings in male dromedary camels with phimosis (PHI, n = 43) and to investigate the association of this syndrome with the hemogram, nitric oxide metabolites (NOMs), and testosterone concentrations. History and signalment were obtained, and a breeding soundness examination was performed. The penis was exteriorized after administration of a pudendal nerve block. Abnormal masses obtained from the prepuce and penis were prepared for histopathology. Blood samples for hemogram assessment were taken from the diseased animals and from 10 healthy control males. Total nitrates/nitrites were determined in sera using the Griess assay. Testosterone was estimated in sera using ELISA. Phimosis associated with detectable pathologic lesions, mainly including ulcerative posthitis and lacerated glans penis, was present in 34 (79.1%) of the 43 cases (PHI-P), whereas the remaining nine (20.9%) of the 43 cases had no noticeable lesions (PHI-N). The PHI-P group showed higher leukocyte counts (P = 0.001), especially neutrophils (P = 0.0001), and greater NOM concentrations (P = 0.002) than the PHI-N and control groups. However, testosterone concentrations did not differ among groups. In conclusion, PHI in the male dromedary camels was mainly associated with ulcerative posthitis and laceration of the glans penis. The presence of pathologic lesions in cases with PHI was associated with leukocytosis, neutrophilia, and high NOM concentrations.

Keywords:

Male dromedary camel; Phimosis; Nitric oxide; Testosterone

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