

A SYSTEMIC REVIEW ON ULTRASONOGRAPHIC APPLICATIONS IN CAMELS

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ABSTRACT

Ultrasound is widely accepted as a safe noninvasive diagnostic imaging technique in animals and human. This review aims to shed light on the current applications and future prospect of ultrasonography in camels. To date, ultrasonography has been used efficiently to study the ovarian status in she camels such as; follicular wave, spontaneous ovulation, optimum time for mating, ovarian vasculature, superovulatory response, ovarian follicular dynamics, ovarian follicular wave synchronisation and follicular deviation. Moreover, it has been applied for collection of cumulus oocyte complexes, pregnancy diagnosis, foetometry, foetal sexing, embryo transfer programmes, assessment of somatic cell nuclear transfer and evaluation of the quality and developmental ability of dromedary embryos. Uterine involution and various reproductive disorders such as; early embryonic death, endometritis, vaginal adhesions, ovarian cysts and ovarian hydrobursitis have been diagnosed by ultrasound. In male camels, ultrasonography is a useful tool in studying the developmental changes of testes and pelvic genitalia including; bulbourethral gland, prostate, and pelvic urethra and predicting puberty and future fertility. Normal pleura, heart, fore stomach, liver, small and large intestines, kidney, eye, udder and teat, foot, carpal and tarsal joints have been successfully imaged. However, very limited affections of these structures including; infectious pleuropneumonia, peritonitis, trypanosomiasis, John's disease, intestinal obstruction and ruptured urinary bladder have been diagnosed ultrasonographically in camels. Therefore, ultrasonographic application in camels, compared to other farm animals, is still limited. In conclusion, ultrasonography is untapped in camel practice however, it can offer veterinarians the opportunity for more precise diagnosis and treatment of numerous disorders.

Key words: Camel, dromedary, foetometry, ovum pick-up, pregnancy diagnosis, ultrasonography