



**University of Zabol  
Graduate School  
Faculty of Veterinary Medicine  
Department of Clinical Science**

**Professional doctoral dissertation in veterinary medicine**

**Ultrasonographic Evaluation of reproductive system of  
Sistani cows with prolonged postpartum anestrus**

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**Abstract:**

Sistani cow is a beef cattle of Boss Indicus and native to Sistan region. This breed has tremendous advantages in weight gain, food conversion ratio and resistance to diseases and conditions of the region. According to a recent study conducted at the Sistani Cattle Research Farm, the average length of postpartum anestrus (calving to first estrus interval) in this breed was long, leading to a significant reduction in herd reproductive performance. So far, no study has examined the condition of anestrus of Sistani cows. The aim of this study was to investigate the cause of prolonged postpartum anestrus in Sistani cows of the mentioned farm by clinical examination of the reproductive system. For this purpose, the ovarian and uterine status of postpartum Sistani cows that were not seen in estrus more than 60 days postpartum in this herd, were evaluated in two stages at 12-day intervals using palpation and rectal ultrasonography. Accordingly, anestrus cows were classified into five categories; 1) Cows that were pregnant; 2) cows with inactive ovaries; Which had no corpus luteum in two consecutive assessments; 3) cyclic cows whose estrus was not observed; Who had a corpus luteum in at least one of the evaluations; 4) cystic cows; who had follicular structure larger than 2.5 cm, at least in one of the evaluations, and 5) pyometra cows; The uterus contained purulent discharge and had a corpus luteum in both stages. Of the 29 anestrus cows evaluated during the study period, 10 (35%) cows had unexpected pregnancies, 14 (48%) cows had inactive ovaries, and 5 (17%) cow had estrus cycles. According to the results of this study, the main cause of anestrus in Sistani cows under the studied field conditions was ovarian dysfunction and poor estrus detection, while cystic ovary disease and pyometra were not observed in the herd.

**Keywords:** Sistani cattle, Beef cattle, Anestrus, Ultrasonography