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Certificate of participation

Herewith we confirm the participation of

Mrs. / Ms. / Mr.: Massoud Talebkhan Garoussi
from: Mashhad, Iran

at the 25th Annual Meeting of the European Society of Veterinary Pathology
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for the
Local Organizing Committee

Histopathological survey of the uterus of Holstein dairy cows without clinical signs of reproductive system disorders.

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Introduction: The clinical symptoms of reproductive abnormalities may not be demonstrated by clinical examination such as: rectal palpation or vaginal examination. Delayed conception in dairy cows often causes economical losses. The objective of this study was to evaluate the uterine histopathological changes in Holstein dairy cows without any clinical signs of reproduction system abnormalities.

Material and methods: 115 lactating Holstein cows without any clinical symptoms of reproduction system diseases were examined. Cows were inseminated artificially ($n = 83$; 72.2%) for 3 times after the last calving, or had not been recorded with any oestrus signs since 3 months after their last calving ($n = 32$; 27.8%). Biopsies of the endometrium and submucosa were obtained, by using a sterile alligator-jawed (rounded) biopsy forceps, from the medial wall of the uterine horns. They showed various stages of the oestrus cycle. The samples were placed in 10% formaldehyde. After the related processing of the samples, they were evaluated for microscopic pathological changes.

Results: The results showed that 89 (77.4%) dairy cows had no pathological lesions. However, 26 (22.6%) cases had pathological changes such as: chronic endometritis ($n = 18$; 15.7%), follicular chronic endometritis ($n = 3$; 2.6%), and acute endometritis ($n = 5$; 4.3%).

Discussion: Evaluation of uterine biopsies is not common in cows. Endometritis can be a common cause for subfertility and infertility in dairy cattle. This study showed that 1) an endometrial biopsy can be useful for evaluation of reproduction performance of dairy cows; 2) non-pathological effects such as management of dairy cattle herds, heat detection, artificial insemination in wrong time and so on may be the reasons of unsuccessful conception; 3) cows without any clinical signs of reproductive disorders may be infected; 4) dairy cows with high milk production may not show oestrus signs.

