INCIDENCE OF UTERINE NEOPLASIA IN ABATTOIR BUFFALOES (*Bubalus bubalis*)

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ABSTRACT

Infertility due to uterine neoplasia in bovines is a threat to the dairy industry. The reported incidence of uterine neoplasia is extremely low in cows, and almost non-existent in buffalo cows. This paper presents the pathological changes of the uterus in infertile buffalo cows, its relationship with uterine neoplasia, and their AgNOR (Argyrophilic nucleolar organizer regions) count in 73 abattoir genitalia of graded Murrah buffalo cows. Gross pathological examination of uteri did not reveal tumor mass in the majority of cases (98.63%) in this study. However, histopathological examination of the uteri with gross changes of uterus *viz.*, congested capillaries and petechiae, whitish foci on endometrium, and thickened uterine wall, were positive for neoplasia in 100%, 83.33%, and 60% of cases, respectively, implying that these could be interpreted as covert signs of uterine neoplasia. Cytological examination of impression smears of uteri revealed abnormal cellular pattern in 73.97% of cases of suspected neoplasia, out of which 70% were confirmed positive by histopathological examination. The incidence of neoplasia in the examined specimen was 52.05 percent. The rest were chronic endometritis (26.03%) and dysplasia (21.92%). The major neoplasms were adenocarcinoma (42.11%), haemangiosarcoma (7.9%), and haemangioma with adenocarcinoma (7.9%). The incidences of other neoplasms *viz.*, leiomyosarcoma, myxosarcoma, carcinosarcoma, haemangiopericytoma, endometrial stromal sarcoma, haemangiosarcoma with adenocarcinoma, and leiomyoma with adenocarcinoma were low, and each accounted for 2.63 percent. In adenocarcinomas, histiocytic adenocarcinoma and scirrhous adenocarcinoma accounted to 25% and 12.5% respectively. Lymphosarcoma with scirrhous adenocarcinoma accounted for 11.11% of lymphosarcomas with adenocarcinoma. The mean AgNOR counts for neoplasms (6.76±0.14) was significantly (*P*≤0.05) higher than dysplasia (5.05±0.08) and chronic endometritis (3.08±0.19). This study implied that uterine neoplasia could be one of the etiological factors for infertility in buffalo cows, and suggests cytological examination of uterine discharges of infertile animals as a routine clinicopathological practice to detect the infertile animals in the herd.

KEY WORDS

Abattoir genitalia, AgNOR, Buffalo, Infertility, Neoplasia

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