ABSTRACT

A case of bilateral hydrosalpinx with multiple affections in oviducts is reported in present communication.

Keywords: buffalo, oviduct, bilateral hydrosalpinx

INTRODUCTION

Genital organ disorders are an important cause of infertility and sterility in buffaloes causing high economic losses (Azawi, 2008). Generally, female animals are culled and sent to the slaughterhouse either because they are uneconomic to maintain or else because they have some disease problem. Hence, abattoirs are a good source of material for studying pathological lesions of buffalo reproductive organs that are severe enough to cause infertility and even sterility (Dobson and Kamonpatana, 1986). Earlier surveys on morbid genitalia revealed higher incidence of structural abnormalities in buffaloes as compared to cattle. The oviducts are important for fertilization and maintenance of the embryo until its arrival in the uterus. Salpingitis, hydrosalpinx and pyosalpinx are common diseases affecting the oviduct in domestic mammals, especially cattle (McEntee, 1990). All these the oviductal affections cause hindrance to proper gamete transport, and hence, fertilization fails to occur. Published reports on the incidence of oviductal abnormalities in buffaloes, though not very common in India (0.31 to 0.62%), are considerably higher in areas like Latin America (1.3 to 5.2%), Egypt (1.7 to 5.9%), and Pakistan (10.9%) (Kumaresan and Ansari, 2002; Vale et al., 1988). Hydrosalpinx, an oviductal disorder in buffalo, has been reported to occur in 1.8 to 2.2% cases of slaughtered animals in India (Dwivedi and Singh, 1971). In a survey of morbid genitalia, Azawi (2009) reported 71.4% of the hydrosalpinx were unilateral while the rest were of the bilateral type. Reports of multiple affections of the oviduct in a single case are rare.

A number of morbid genitalia were collected from the central buffalo slaughter house, Bareilly and transported to the laboratory for evaluation within two hours of slaughter. Each specimen was grossly examined in the laboratory in order to determine the nature of the reproductive abnormality and its location in the tract. Of these, one genitalia had bilateral hydrosalpinx; hence, the specimen was subjected to thorough observation (Figures 1 and 2).

Left oviductal portion: From the pictorial view, it was clear that the left ovary was...
completely ingrained by the ovarian bursa and adnexa. The oviductal parts seemed to be tightly coiled with extensive enlargement of ampullae and infundibulum with accumulation of clear viscous fluid. However, the isthmic portion appeared to be normal.

Right oviductal portion: The ovary was free from any adhesion and was functional with a corpus haemorrhagicum. A tough membranous attachment from the dorsal part of uterus to the oviduct was present. Ampulary and infundibular conditions were similar to those of the left oviductal part. The ostium abdominal, opening of

Figure 1. Bilateral hydrosalpinx in buffalo genitalia.

Figure 2. Close view of enlarged infundibulum and ampullae of buffalo oviduct.
the infundibulum was tightly closed and placed apart from the ovary hence, failed to pick up the ovum at ovulation.

On macroscopical observation no pathological lesions were observed in the uterine horns. Endometrial cytology, carried out using Giemsa staining technique, indicated that the animal was negative for endometritis. The rest of the organ was normal without any affection.

The exact mechanism by which hydrosalpinx develops is still not established. The propositions put forth so far by various researchers are mainly concerned with the blockage or inflammatory conditions responsible for development of hydrosalpinx. According to Azawi et al. (2007) severe inflammation of the uterine tissue could be extended to utero-tubal junction or the end part of isthmus resulting in fibrosis and tubal obstruction, and leading to accumulation of fluid. Miller and Campbell (1978) claimed that hydrosalpinx is a sequel to a localized salpingitis resulting in oviductal obstruction. If the condition is unilateral, the fertility of the affected animal is maintained to some extent. If it is bilateral, complete sterility occurs; this might be the reason for the slaughter of the buffalo reported in this case. The case here was no doubt a multiple affection including the oviduct and the ovary, but we failed to detect any apparent inflammatory condition. This atypical case by its origin could be explained by the suggestion of Ellington and Schlafer (1993), who supposed that hydrosalpinx might be a congenital condition affecting oviductal segments.

REFERENCES