

Cystadenocarcinoma in the Ovary of Thoroughbred Mare

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Introduction

Papillary cystadenocarcinoma is an uncommon ovarian neoplasm of domestic animals, with the possible exception of the bitch. In the horse ovary, it is rare as compared with benign epithelial tumors. This case reports the gross and histopathological finding of cystadenocarcinoma in a 10-year-old, clinically healthy Thoroughbred mare.

Materials and Methods

The ovarian tissue was fixed in 10% neutral buffered formalin for light microscopy, processed routinely and embedded in paraffin. Sections were cut into 4µm in thickness and stained with hematoxylin and eosin (H&E).

Results

The excised ovary was 10cmx7cmx7cm with a smooth surface and scattered surface hemorrhage. On cut surface, the ovary contained numerous spherical cysts ranging from 5 to 30mm in diameter, filled with a serosanguineous fluid. Microscopically, unilocular cysts occasionally coalesced to form multilocular cysts. Lining epithelium varied from a single layer of columnar cells on a fibrous cyst wall, to multiple layers of disordered epithelium forming papillary projections into the cyst lumen. Cells lining areas in which papillary projections was prominent tend to lose polarity and invade surrounding stroma.

Discussion

Papillary cystadenocarcinoma is an uncommon ovarian neoplasm of domestic animals, with the possible exception of the bitch. In the horse ovary, it is rare as compared with benign epithelial tumors [1,2]. These malignancies rarely metastasize via vascular channels, more commonly

spreading by peritoneal explantation following cyst rupture and content leakage [2]. Ascites may arise as a result of obstruction of peritoneal lymphatics, peritoneal metastasis, or both [3].

Papillary cystadenocarcinoma in the mare may arise from epithelium of the follicles, medullary or cortical embryonic cords, rete ovarii, infundibulua, and the ovarian serosa [4]. The cytomorphology and behavior of individual neoplasms may vary with location.

References

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