

Metastatic ovarian stromal tumor in a young bitch

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A 2 year old, nulliparous, intact female mixed breed dog was initially presented to the primary care veterinarian for evaluation of 2 week history of hyporexia, abdominal distension, lethargy and acute weight loss. The bitch's most recent estrous cycle was 2 weeks prior to presentation. Physical examination and complete blood count revealed a mild nonregenerative anemia, leukocytosis and hyperthermia. The patient was diagnosed with presumptive pyometra and placed on an unrecorded form and dose of antibiotics. Two weeks later, the patient was presented after hours to an emergency clinic for continued symptoms. Abdominal ultrasonography revealed an abdominal mass. Physical examination findings at our hospital were: body condition score of 4/9, tachycardia, tachypnea, grossly distended and painful abdomen, and a firm tubular structure palpable ventrally per rectum. All other physical examination parameters were within normal limits, including a lack of vulvar discharge. Complete blood count displayed an inflammatory leukogram with a neutrophilic leukocytosis and left shift. Partial thromboplastin clotting time was also slightly elevated. Abdominal ultrasonography revealed a large, complex, heterogeneous mass in the right cranial abdomen that was closely associated with the right ovary though its origin from a specific organ was not identifiable. A smaller, ovoid mass was identified causing dorsal displacement of the right cranial aspect of liver. Moderate pleural and peritoneal effusion and enlarged right medial iliac and portal lymph nodes were also identified. Ultrasound guided abdominocentesis produced a serosanguinous transudate. Uterus was not clearly appreciated. Primary differential diagnoses included cystic peritoneal neoplasia of unknown origin or disseminated granulomatous disease. Due to poor prognosis, the owners elected humane euthanasia. Necropsy findings included a 20 x 20 x 20 cm lobulated mass originating from the right ovary with multiple corpora lutea. Multiple tan, firm and round soft tissue nodules of varying size were observed within the diaphragm, at the level of thoracic inlet and adjacent to the pancreas. Histology of the primary ovarian mass, pancreatic and diaphragmatic nodules revealed a large neoplastic population of cells with variable cellular detail. Cells varied from plump, eosinophilic and foamy (luteal cells) to slender fusiform cells (theca cells) to rounder or cuboidal cells with moderate cytoplasm that tended to surround fluid filled spaces (granulosa cells). Final diagnosis was malignant ovarian stromal tumor with a tendency of differentiation towards luteal cells. To the authors' knowledge this is the first report of a mixed cell type metastatic ovarian stromal cell tumor in a young dog.

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