Abdominal mass and abdominal effusion in a dog

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Signalment: 3 years-old, intact female Husky

Specimens:

- Abdominal effusion
- Cytological sample from an abdominal mass of unknown origin

History:

Macha was referred to the veterinary hospital of the Ecole Nationale Vétérinarie d'Alfort (ChuvA) following the detection of an abdominal effusion upon ultrasound examination and palpation of an abdominal mass. For the past 10 ten days, Macha had been vomiting and presented with dysorexia and tenesmus. The owners had also noted a distended abdomen.

Clinical findings:

Despite Macha initial aggressiveness, a physical examination was performed and was unremarkable except for a distended abdomen and the presence of a palpable abdominal mass. A serum biochemistry profile including urea, creatinine, ALP, ALT, glycemia, total proteins and albumin was unremarkable. Sodium, chloride, potassium, ionized calcium, blood pH and pCO₂ were all within the reference intervals. A CBC revealed a minimal leukocytosis (21940 cells/mm³; RI: 5600-20400 cells/mm³) characterized by a minimal neutrophilia (18868 cells/mm³; RI: 2900-13600 cells/mm³). An abdominal ultrasound demonstrated the presence of a voluminous peritoneal effusion, 2 liters of which were removed and submitted for cytological examination (table 1; figure 1). A 10cm, heterogeneous mass was also observed; however, it was not possible to determine its origin and fine needle aspirates were submitted to the clinical pathology laboratory for cytological evaluation (figure 2).

Table 1: Abdominal effusion results

Analytes	Observed value
Total nucleated cell count	6100 /mm ³
Total proteins	19 g/L

Figure 1: Cytocentrifuged preparation from the peritoneal effusion (May-Grünwald Giemsa staining)



Figure 2: Fine needle aspirates from the abdominal mass (May-Grünwald Giemsa staining)



Questions:

- What is your cytological diagnosis and interpretation for the abdominal effusion?
- How would you characterize the cells present on the FNA cytology from the abdominal mass?
- What is your differential diagnosis or diagnosis for the abdominal mass?