Case Report:
Ovarian fibroma in mares - Hormonal considerations

J. Ponthier¹, A. Salciccia¹, S. Parrilla-Hernandez², C. Cesarini-Latorre¹, S. Jolly³, S. Deleuze¹&²
¹Equine Clinic, Clinical Sciences Department & ²Reproductive Physiology, Functional Sciences Department, UG - University of Liège, Belgium
³Lab4vet, Fernelmont, Belgium

History
• 13 year-old mare
• Hospitalized for colics:
  • Alimentary obstruction of colon
  • Large left ovary incidentally palpated

Genital tract examination
• Left ovary
  • Size: 5.8 cm
  • Large echogenic area: 5 cm
  • No follicles > 10 mm
• Right ovary
  • Corpus Luteum observed
  • Follicular growth (<15 mm)

Histopathological findings
• Well circumscribed neoplasm, partially encapsuled
• Collagenous stroma
• Small haemorrhages & cystic areas with basophilic material
• Tumoral cells:
  • Thin cytoplasm, elongated, regular
  • Hyperchromatic nuclei & inconspicuous nucleoli
  • Rare mitotic figures (<1/10 per field, X40)

Diagnosis: Benign ovarian fibroma

Histology of the ovarian fibroma

Hormonal investigation
• Oestradiol < 5 pg/mL
• Testosterone < 25 pg/mL
• Progesterone = 1.98 ng/mL
• AMH (Anti-Mullerian Hormone): 2.21 ng/mL

Surgery
• Standing sedated mare
• Laparoscopy
• Unilateral left ovariectomy

Outcome
• No post-surgery complication
• Follow-up after 6 month: no problems observed

Discussion
• No hormonal secretion observed in this case of ovarian fibroma (confirmed in a second case this year)
  • In human ovarian fibroma:
    • No steroids
    • No AMH
  • 2 cases of ovarian fibroma in mares this year in our clinic:
    • Discrete symptoms, rare diagnosis
• Theca & Granulosa Cells Tumor (TGCT): most frequent and only secreting ovarian tumor in equine:
  • Androgens, oestrogens, progesterone (in some cases)
  • Inhibin
  • AMH (human assay recently validated for TGCT diagnosis in equine)

Conclusions: In the equine, ovarian fibromas are benign, asymptomatic and non-secreting tumors, very likely under diagnosed. Their evolution and growth are still unknown, but there is no impact on cyclicity.

References: