Recovery of a stallion with a chronic scrotal hydro/pyocele and azoospermia

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Chronic fluid accumulations in the scrotum are often assumed to have a poor prognosis, especially when associated with azoospermia, and often result in castration. A 9-year old Andalusian stallion presented with a one-month history of an enlarged scrotum that was non-responsive to diuretics, anti-inflammatory medication, exercise, and hydrotherapy. The physical examination was within normal limits except for prominent bilateral scrotal enlargement. Testicular ultrasound showed increased testicular blood flow, bilaterally enlarged spermatic cords, and large amounts (4-6 cm) of hyperechoic fluid within the vaginal cavity. Cloudy, opaque, yellow fluid with an increased total protein (5.5 g/dL) and cellularity (WBC: 128,000 cells/µL, RBC: 12,000 cells/µL) was recovered by scrotalcentesis; gram stain and culture were negative. Collected semen contained few immotile sperm. The stallion was diagnosed with bilateral pyocele, but the cause was unknown.

A drain was placed in the right vaginal cavity and flushed for four days before removal. The left vaginal cavity was drained and flushed once without the placement of a drain. Within a week the scrotum returned to a normal size. The stallion was treated with doxycycline, saccharomyces capsules, flunixin meglumine, and frequent exercise.

Two months after discharge the scrotal contents had minimal abnormal changes. The second of two ejaculates contained 7.1 billion sperm with 79/55% total/progressively motile sperm and 38% morphologically normal sperm.

An enlarged scrotum is often associated with trauma or hot summer conditions, but may also be secondary to castration, peritonitis, orchitis, or inguinal hernia.1,2 In breeding animals the primary complication of an enlarged scrotum is reduced fertility due increased testicular temperature.2,3 Common treatments include anti-inflammatory medication, hydrotherapy, exercise, and castration of chronic cases.4,5 Stallions with chronic hydro/pyocele and azoospermia should not be assumed permanently sterile, and in this case drain placement facilitated fluid removal and apparent recovery of testes function.

Keywords: Stallion, scrotum, testes, hydrocoele, pyocele, azoospermia

References