Hematospermia

Introduction

• **Definition:** hematospermia or hemospermia is the appearance of blood in the ejaculate. It is an uncommon occurrence that produces great alarm in the patient.

• **Presentation:** it is usually a single, self-limited, monosymptomatic episode with a benign cause. However, in men >40 there is a 14% chance of prostatic neoplasia.

• **Differential diagnosis:** frenulum tears, balanic lesions, gynecological blood, *melanospermia* (black staining of the semen in malignant melanoma).

Hematospermia in men <40 years of age

Usually idiopathic, with a single, self-limited episode not accompanied by other symptoms.

• **Probable causes:** idiopathic in 79% of cases. Other causes:
  - *Prostatic pathology:* prostatitis, prostatovesiculitis, or lithiasis.
  - *Seminal vesicle pathology:* dilations, cysts, obstruction, diverticula.
  - *Urethral pathology:* urethritis, genital warts, hemangiomas, or varicosities.
  - *Linked to sexual activity:* prolonged intercourse or masturbation, *coitus interruptus,* or prolonged sexual abstinence (*hematospermia ex vacuo*).

• **Diagnosis:**
  - *Condom test:* if there are doubts as to the origin of the blood.
  - *Urological examination:* penis, meatus, testes, and DRE.
  - *Sediment, urine culture, fractionated culture, Koch bacillus in urine* (if TB is suspected).
  - *CBC and coagulation test:* to rule out thrombocytopenia or coagulopathy.

• **Treatment:**
  - *Etiological:* treatment of the identified cause.

Hematospermia in men >40 years of age

Or in cases of recurrent or intractable hematospermia accompanied by other symptoms.

• **Possible causes:** idiopathic in 30-70% of cases. Other causes:
  - *Benign pathology similar to that of men <40,* and hypertension, *blood dyscrasias* or cirrhosis.
  - *Prostatic pathology:* prostatic, ductal, or endometrial adenoma/carcinoma.
  - *Seminal vesicle pathology:* seminal vesicle carcinoma.
  - *Urethral pathology:* urethral transitional cell carcinoma, stenosis, urethral polyps.
  - *Testicular pathology:* tumors or epididymo-orchitis.

• **Diagnosis:**
  - *Urological examination:* penis, meatus, testes, and DRE.
  - *CBC, biochemistry, coagulation tests,* and *PSA.*
  - *Sediment, urine culture, fractionated culture, Koch bacillus in urine* (if TB is suspected).
  - *Transrectal ultrasound:* in addition to radiological findings, this allows puncture of vesicles or cysts to determine the origin of the hematospermia.
  - *MRI:* when there are doubtful findings in the transrectal ultrasound.
  - *Urethrocystoscopy:* helps detect urethritis, urethral polyps or stones, vascular abnormalities, foreign bodies, varicosities in the bladder neck, etc.
  - *7-8 F ureteroscope vesiculoscopy:* diagnostic and therapeutic procedure that dilates ejaculatory ducts to remove stones, instill antibiotics, and drain infections.

• **Treatment:** etiological. Vesiculoscopy and transrectal puncture of the seminal vesicles with continuous antibiotic irrigation have proven useful in persistent idiopathic cases.