Pediatric Male GU Emergency Quiz Answers

1. c. Phimosis is constriction of the foreskin which results in the inability to retract the prepuce over the glans. Most cases are physiologic in that only 4% of newborn males have a fully retractable foreskin. This increases with age, with 25% of 6-month olds, 50% of 1-year-olds, 80% of 2-year-olds and 90% of 4-year-old males having fully retractable foreskins.

2. c. The definitive therapy is immediate surgery for patients with torsion. This intervention should not be delayed for diagnostic studies. If a surgical evaluation is not available, then manual detorsion should be performed.

3. c. Low-flow priapism is more common than high-flow priapism and is secondary to decreased venous outflow. The most common cause in children is sickle cell disease, which accounts for approximately 66% of cases and occurs in up to 6% of prepubertal boys with sickle cell disease. Eleven percent of pediatric priapism is secondary to leukemia. Immunosuppressive disorders, and anticoagulation may also be contributing factors. Intracavernosal injections such as papaverine, phenolamine and PGE-1 can also result in priapism. Other drugs such as phenothiazines, sedative-hypnotics, selective serotonin uptake inhibitors, anti-hypertensives, anticoagulants and drugs of abuse such as cocaine, alcohol and marijuana may also be contributory. High-flow priapism is typically associated with penile arterial laceration and excessive inflow of arterial blood, resulting in corporal engorgement which is usually painless.

4. b. Knight and Vassy report that testicular salvage rates are time dependent with a 96% success rate if detorsion is performed within 4 hours of symptoms onset, 93% between 4 and 8 hours of symptom onset, 80% between 8 and 12 hours, 40% between 12 and 24 hours, and less than a 10% testicular salvage rate if the patient presents greater than 24 hours after symptom onset.

5. c. The pathognomonic finding of torsion of the testicular appendage is the “blue dot sign” which is comprised of the cyanotic appendage immediately below the scrotal wall. This finding is present in 14 to 22% of cases and is visualized as a blue reflection when a light shines upon the scrotal skin.

6. d. A normal cremasteric reflex is the drawing up of the ipsilateral scrotum and testicle when the skin on the medial aspect of the thigh is stroked. In one series this finding was absent in 100% of patient’s torsion, and only absent in 14% of patients with epididymitis.

7. c. Diabetes mellitus

8. c. Paraphimosis is a true emergency and referral should be immediate not in 24 hours.

9. c. Idiopathic scrotal edema is painless erythema and induration of the scrotum. This disorder typically occurs in patients between 2 and 11 years of age, with 77% of cases occurring before 10 years of age (18). Two-thirds of cases are unilateral and no specific allergens have been identified. Patients develop painless erythema and induration of the scrotum, which may be pruritic. There is minimal tenderness on physical examination, but the edema and erythema
may extend to the phallus, groin and abdomen. Fever is rare. Patients can be discharged home with outpatient follow up, once acute pathology has been ruled out. Most cases will resolve spontaneously within 1 to 4 days and do not require any treatment.

10. a. The left spermatic vein empties directly into the left renal vein, whereas the right spermatic vein drains into the inferior vena cava (IVC) and then into the right renal vein. Therefore, left-sided varicoceles account for 85 to 95 percent of cases; however up to 22% of patients may have bilateral varicoceles. When a varicocele does not diminish in the supine position – there may be obstruction at the level of the IVC or renal vein. Intraabdominal pathology should be suspected in cases of right-sided varicoceles. The sudden onset of left-sided varicocele should raise the suspicion of renal cell carcinoma with obstruction of the left renal vein.

11. b. Most hydroceles are right sided. They may be present at birth, but are usually painless and may spontaneously resolve by 18 months of age. Examination will reveal enlargement of the scrotum with transillumination. Patients should be referred for outpatient evaluation.