**CASE 3: Urinary Obstruction (350WORD)**

Case Studies

The 57-year-old patient noted urinary hesitancy and a decrease in the force of his urinary

stream for several months. Both had progressively become worse. His physical examination

was essentially negative except for an enlarged prostate, which was bulky and soft.

Studies Results

Routine laboratory studies Within normal limits (WNL)

Intravenous pyelogram (IVP) Mild indentation of the interior aspect of the bladder,

indicating an enlarged prostate

Uroflowmetry with total voided

flow of 225 mL

8 mL/sec (normal: >12 mL/sec)

Cystometry Resting bladder pressure: 35 cm H2O (normal: <40 cm H2O)

Peak bladder pressure: 50 cm H2O (normal: 40-90 cm H2O)

Electromyography of the pelvic

sphincter muscle

Normal resting bladder with a positive tonus limb

Cystoscopy Benign prostatic hypertrophy (BPH)

Prostatic acid phosphatase

(PAP)

0.5 units/L (normal: 0.11-0.60 units/L)

Prostate specific antigen (PSA) 1.0 ng/mL (normal: <4 ng/mL)

Prostate ultrasound Diffusely enlarged prostate; no localized tumor

Diagnostic Analysis

Because of the patient’s symptoms, bladder outlet obstruction was highly suspected. Physical

examination indicated an enlarged prostate. IVP studies corroborated that finding. The

reduced urine flow rate indicated an obstruction distal to the urinary bladder. Because the

patient was found to have a normal total voided volume, one could not say that the reduced

flow rate was the result of an inadequately distended bladder. Rather, the bladder was

appropriately distended, yet the flow rate was decreased. This indicated outlet obstruction.

The cystogram indicated that the bladder was capable of mounting an effective pressure and

was not an atonic bladder compatible with neurologic disease. The tonus limb again

indicated the bladder was able to contract. The peak bladder pressure of 50 cm H2O was

normal, again indicating appropriate muscular function of the bladder. Based on these

studies, the patient was diagnosed with a urinary outlet obstruction. The PAP and PSA

indicated benign prostatic hypertrophy (BPH). The ultrasound supported that diagnosis.

Cystoscopy documented that finding, and the patient was appropriately treated by

transurethral resection of the prostate (TURP). This patient did well postoperatively and had

no major problems.

Critical Thinking Questions

1. Does BPH predispose this patient to cancer? 2. Why are patients with BPH at increased risk for urinary tract infections? 3. What would you expect the patient’s PSA level to be after surgery? 4. What is the recommended screening guidelines and treatment for BPH? 5. What are some alternative treatments / natural homeopathic options for treatment?

**CASE 4Inflammatory Bowel Disease(350WORD)**

Case Study

The patient is an 11-year-old girl who has been complaining of intermittent right lower

quadrant pain and diarrhea for the past year. She is small for her age. Her physical

examination indicates some mild right lower quadrant tenderness and fullness.

Studies Results

Hemoglobin (Hgb), 8.6 g/dL (normal: >12 g/dL)

Hematocrit (Hct), 28% (normal: 31%-43%)

Vitamin B12 level, 68 pg/mL (normal: 100-700 pg/mL)

Meckel scan, No evidence of Meckel diverticulum

D-Xylose absorption, 60 min: 8 mg/dL (normal: >15-20 mg/dL)

120 min: 6 mg/dL (normal: >20 mg/dL)

Lactose tolerance, No change in glucose level (normal: >20 mg/dL rise in

glucose)

Small bowel series, Constriction of multiple segments of the small intestine

Diagnostic Analysis

The child's small bowel series is compatible with Crohn disease of the small intestine.

Intestinal absorption is diminished, as indicated by the abnormal D-xylose and lactose

tolerance tests. Absorption is so bad that she cannot absorb vitamin B12. As a result, she has

vitamin B12 deficiency anemia. She was placed on an aggressive immunosuppressive

regimen, and her condition improved significantly. Unfortunately, 2 years later she

experienced unremitting obstructive symptoms and required surgery. One year after surgery,

her gastrointestinal function was normal, and her anemia had resolved. Her growth status

matched her age group. Her absorption tests were normal, as were her B12 levels. Her

immunosuppressive drugs were discontinued, and she is doing well.

Critical Thinking Questions

1. Why was this patient placed on immunosuppressive therapy? 2. Why was the Meckel scan ordered for this patient? 3. What are the clinical differences and treatment options for Ulcerative Colitis and Crohn’s

Disease? (always on boards)

4. What is prognosis for patients with IBD and what are the follow up recommendations for managing disease?