Getting Ready For Certification: Minimally Invasive Therapy for Benign Prostatic Hyperplasia

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When taking the certification exam, questions related to benign prostatic hyperplasia (BPH) are considered part of the obstructive uropathy category. The incidence of BPH, the most common benign neoplasm in men, is age-related. Symptoms may occur in men as early as 40 years of age. After the age of 50, up to 50% of men report obstructive voiding symptoms. For decades, surgical options (i.e., transurethral resection of the prostate or open prostatectomy) were the only means of resolving symptoms related to BPH and obstruction. In the early 1990s, medications came to the forefront as first-line therapy. More recently, if a man desires more definitive therapy or fails medical management, minimally invasive therapy is available. Options include laser therapy, transurethral electrovaporization of the prostate, hyperthermia, transurethral needle ablation of the prostate, high-intensity focused ultrasound, and intraurethral stents. Advantages of these techniques include minimal blood loss, rare instances of TUR syndrome, and ability to be done as an outpatient procedure.

1. Absolute indications for surgical management of BPH, either invasive or minimally invasive, include the following:
   a. sexual side effects of medical therapy; specifically the 5-alpha-reductase inhibitors
   b. hypotensive side effects of alpha blockers
   c. a family history of BPH managed with surgical intervention
   d. refractory urinary retention requiring repeated foley catheter placement.

2. Microwave therapy was the first available method of hyperthermia for treatment of BPH. Ongoing clinical trials are in progress for this method of hyperthermia:
   a. photovaporization of the prostate (PVP)
   b. transurethral needle ablation of the prostate (TUNA)
   c. high-intensity focused ultrasound (HIFU)
   d. transurethral laser-induced prostatectomy (TULIP)

3. Men who are not deemed appropriate candidates for anesthesia are best offered the following minimally invasive therapy:
   a. transurethral microwave therapy
   b. medical management with alpha blockers
   c. medical management with 5-alpha-reductase inhibitors
   d. intraurethral stents

4. The most significant disadvantage to minimally invasive therapies for BPH is:
   a. more irritative voiding complaints immediately postoperatively
   b. longer postoperative catheterization time
   c. lack of availability of tissue for pathologic examination.
   d. the durability of response to treatment

Answers

1. D – Absolute indications for surgical treatment include refractory urinary retention (failing attempts at catheter removal), recurrent urinary tract infections from BPH, recurrent gross hematuria from BPH, bladder stones, renal insufficiency from BPH, or large bladder diverticula (Presti, Kane, Shinohara, & Carroll, 2008, p. 352).

2. C – HIFU is another means of performing thermal tissue ablation and is in ongoing clinical trials. (Presti et al., 2008, p. 355)

3. D – These devices (intraurethral stents) are typically used for patients not deemed to be appropriate candidates for surgery or anesthesia. (Presti et al., 2008, p. 355; Ellsworth & Caldamone, 2007, p. 153.)


References


Benign prostatic hyperplasia (BPH) is a condition primarily of middle-aged and elderly men. The frequency of the condition increases with age, so it is found in the majority of very elderly men. Consequently, surgical and medical treatments for BPH are some of the most common therapies administered in all of medical practice. BPH is associated with bothersome lower urinary tract symptoms that may include urgency to urinate, frequent urination, weak stream, straining, and/or the sensation of incomplete bladder emptying. These symptoms affect quality of life and sleeping patterns. Benign prostatic hyperplasia (BPH), also called prostate enlargement, is a noncancerous increase in size of the prostate gland. Symptoms may include frequent urination, trouble starting to urinate, weak stream, inability to urinate, or loss of bladder control. Complications can include urinary tract infections, bladder stones, and chronic kidney problems. The cause is unclear. Risk factors include a family history, obesity, type 2 diabetes, not enough exercise, and erectile dysfunction. Medications Benign prostatic hyperplasia (BPH) is a histologic diagnosis that refers to the proliferation of smooth muscle and epithelial cells within the prostatic transition zone. The prevalence and the severity of lower urinary tract symptoms (LUTS) in the aging male can be progressive and is an important diagnosis in the healthcare of patients and the welfare of society. Despite the more prevalent (and often first line) use of medical therapy for men suffering from LUTS attributed to BPH, there still remain clinical scenarios where surgery is indicated as the initial intervention for LUTS/BPH and should be recommended, providing other medical comorbidities do not preclude this approach. Benign prostatic hyperplasia (BPH) is defined as the proliferation of prostatic stromal cells, which.