NURSING CARE OF THE CLIENT WITH A URETERAL STENT

Ureteral stents are used to maintain patency and promote healing of the ureters (see figure below). A stent may be temporary, used during and after a surgical procedure, or it may be used for longer periods in clients with ureteral obstruction due to tumors, strictures, or other causes.

Stents may be positioned during surgery or cystoscopy. They are made of a nontoxic material such as silicone or polyurethane, with side drainage holes placed along the length of the stent. Stents are radiopaque for easy radiographic identification. One or both ends of the stent may be pigtail or J-shaped to prevent migration.

- Label all drainage tubes including stents for easy identification. Attach each catheter and stent to a separate closed drainage system. Careful labeling allows close monitoring of output from all sources and reservoirs. Separate drainage systems minimize the risk of infection.
- If the stent has been brought to the surface, secure it and maintain its position. The stent is usually placed in the renal pelvis. It is important to secure it well to prevent trauma to the kidney, inadvertent removal of the stent, and ureter obstruction.
- Monitor urine output, including color, consistency, and odor. Monitor for signs of infection or bleeding: fever, tachycardia, pain, hematuria, and cloudy or malodorous urine. The stent facilitates urine flow but may become obstructed because of bleeding, calculi, or sediment. Obstruction may result in hydronephrosis and kidney damage. The stent itself is a foreign body in the urinary tract and can increase the risk of UTI.
- Maintain fluid intake, encouraging fluids that acidify urine, such as apple and cranberry juice. The stent can precipitate calculus formation as well as UTI. Increasing fluid intake and acidifying the urine help prevent these complications.
- For an indwelling stent, stress the need for regular follow-up to monitor for and prevent complications such as UTI and calculi. The client with an indwelling stent may tend to forget that the stent is in place and become lax in compliance with follow-up and preventive measures.

Health Promotion

Teach measures to prevent UTI to all clients, particularly to young, sexually active women. Encourage clients to maintain a generous fluid intake of 2.0 to 2.5 quarts per day, increasing intake during hot weather or strenuous activity. Discuss the need to avoid voluntary urinary retention, emptying the bladder every 3 to 4 hours. Instruct women to cleanse the perineal area from front to back after voiding and defecating. Teach to void before and after sexual intercourse to flush out bacteria introduced into the urethra and bladder. Teach measures to maintain the integrity of perineal tissues: Avoid bubble baths, feminine hygiene sprays, and vaginal douches; wear cotton briefs, avoid synthetic materials; if postmenopausal, use hormone replacement therapy or estrogen cream. Unless contraindicated, suggest measures to maintain acid urine: Drink two glasses of cranberry juice daily; take ascorbic acid (vitamin C), and avoid excess intake of milk and milk products, other fruit juices, and sodium bicarbonate (baking soda).

Assessment

Focused assessment data for the client with a UTI includes the following:

- Health history: current symptoms, including frequency, urgency, burning on urination, voidings per night; color, clarity, and odor of urine; other manifestations such as lower abdominal, back, or flank pain, nausea or vomiting, fever; duration of symptoms and any treatment attempted; history of previous UTIs and their frequency; possibility of pregnancy and type of birth control used; chronic diseases such as diabetes; current medications and any known allergies.
- Physical examination: general health; vital signs including temperature; abdominal shape, contour, tenderness to palpation (especially suprapubic); percuss for costovertebral tenderness (Box 25–1)

See Chapter 25 for complete nursing assessment of the urinary system.