

Urinary Tract Infection in Elderly Females

1. Definition

a. Disease or condition

The disease being discussed is urinary tract infections (UTI) in the elderly female. However, defining a UTI is important in order to understand how the elderly female is affected and which course of treatment will be implemented. Urinary tract infections is an inflammatory response of the urothelium usually caused by the presence of bacteria and white blood cells in the urine (Khauli et al., 2019).

b. Pathophysiology

UTIs are either categorized as uncomplicated, meaning the infection involves the presence of bacteria in the lower urinary tract and its structures (bladder and urethra) or complicated, meaning the infection is caused by structural abnormalities (urinary tract obstructions) or comorbidities such as but not limited to pregnancy, immunosuppression, diabetes, renal insufficiency and or failure to respond to treatment (Bono et al., 2022; Khauli et al., 2019).

c. Incidence and prevalence

In the United States, UTIs are the most common bacterial infections in an outpatient setting and over 10.8 million visited the emergency room and 1.8 million were admitted for treatment between 2006 and 2009 (Lee & Le, 2018). The prevalence among women is higher than men by 30%, and it is the second most prevalent type of infection among the elderly population. Among adults age 65 and over the incidence of UTIs is greater than 10% and that increases to over 30% among those over 85 years old (Akhtar et al., 2021) Furthermore, 60% of women report they have had at least one UTI in their lifetime and close to 10% of post

menopausal women report they have had a UTI in the past year. The prevalence in older women ages 65 and over is about 20% compared to about 11% in the overall population (Medina & Castillo-Pino, 2019). These statistics demonstrates that the elderly women population is at higher risk of developing UTIs and or having recurrent UTIs. One of the reason for this is due to hormonal changes. The female pelvic organs and soft tissue including the urogenital tract is full of estrogen receptors. When a woman undergoes menopause or is post menopausal this lack of estrogen weakens the bladder and pelvic floor muscles and causes the vaginal walls to become thin and dry. As a result, it is easier for bacteria to grow and work itself up to the bladder causing a UTI (Alperin et al., 2019).

2. Assessment

a. Symptoms

Common uncomplicated UTI symptoms include urinary urgency, hesitancy, frequency, dysuria and dysuria and hematuria. Once a patient develops fever, chills, nausea, vomiting, flank or abdominal pain the UTI is now involving the upper urinary tract (Bono et al., 2022). In the elderly one can see altered mental status. Age related changes such as immunosenescence, increased number of comorbidities, functional and cognitive impairments and exposure to nosocomial pathogens if institutionalized places the elderly individual at risk of developing asymptomatic bacteriuria (Rodriguez-Mañas, 2020). Furthermore, persistent asymptomatic bacteriuria is also more prevalent in uncatheterized elderly women that present with a history of bowel and/or bladder incontinence, dementia and or functional disabilities (Rodriguez-Mañas, 2020).

b. Physical Exam