

Asymptomatic Bacteriuria among Type 2 Diabetic Females

Hasan M Al-Musa, MD, MBBS, ABFM*

Background: Asymptomatic bacteriuria (ASB) is a risk factor for pyelonephritis and renal dysfunction in diabetic patients.

Objective: To investigate the prevalence of and risk factors for ASB among type 2 diabetic female patients.

Setting: Chronic Diseases Clinic, Abha Polyclinic, Abha, Saudi Arabia.

Design: A Prospective Controlled Study.

Method: Two hundred forty-six type 2 diabetic females attending the Chronic Diseases Clinic screened for ASB. Personal characteristics, duration and glycosylated hemoglobin (HbA1c) level were recorded. Four hundred ninety-two age-matched, non-diabetic and apparently healthy females registered at the same polyclinic were used as controls. All participants were followed-up every three months for one year for the development of symptomatic UTI.

Result: The mean age of type 2 diabetic females was 50.3 ± 16.2 years, and 50.4 ± 15.1 years for non-diabetic (P-Value=0.976). ASB was detected in 31 (12.6%) diabetic patients and in 32 (6.5%) controls (P-Value=0.005). *E. coli* was the most common organism in diabetic patients (18/31, 58.1%) and control subjects (23/32, 71.9%). Risk factors for ASB among type 2 diabetic females were older age, marriage, duration of diabetes and elevated HbA1c. During the follow-up period, symptomatic UTI developed in 25/31 (80.6%) diabetic patients compared to 39/215 (18.1%) without ASB (P-Value<0.001).

Conclusion: Type 2 diabetic females are at a high risk of developing ASB. Risk factors for ASB include older age, marriage, longer duration of diabetes and high HbA1c.