Prevalence of Urological Complications Associated with Sickle Cell Disease

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Background: Sickle cell disease (SCD) is characterized by sickling of red blood cells during reduced oxygen tension. This leads to intravascular hemolysis and vaso-occlusive events which subsequently cause ischemia-reperfusion damage. Genitourinary system is one of the main organ-systems affected by these sequelae.

Objective: To evaluate the prevalence of associated urological complications in SCD patients.

Design: A Retrospective Study.

Setting: Aseer Central Hospital, Abha City, Kingdom of Saudi Arabia.

Method: One hundred patients were diagnosed with SCD, 70 males and 30 females. Forty-five had associated urological complications.

Result: One hundred patients were diagnosed with SCD; 45 had associated urological complications (29 males and 16 females) were included in the study. Patient's age ranged from two months to 70 years, with a mean age of 10.8 years. Twenty-four (53.3%) patients had hematuria, 14 (31%) had priapism, 3 (6.7%) had end-stage renal disease (ESRD), and 2 (4.4%) had papillary necrosis. Seven (15.6%) SCD had other associated complications. Urological complications among SCD patients did not differ significantly according to gender.

Conclusion: Almost half of SCD patients had associated urological complications, most commonly hematuria, priapism (among males) and ESRD. Therefore, SCD patients should be regularly examined for urological complications to detect early and manage associated urological complications.

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