MORPHOLOGY OF URINARY RED BLOOD CELLS

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Hematuria is now recognised to be associated with an extraordinary long list of both upper and lower urinary tract disorders. (Stapleton,1987).Traditionally, localization of the site of hematuria.has relied haevily on routine urine microscopy - Glomerular bleeding is indicated by presence of red cell casts and often proteinuria. Unfortunately children with glomerulonephritis may have neither casts nor protein present thier urine analysis. Recently examination of the morphology of red cells in the urine have been shown tobe a promising adjunct in determining whether hematuria represents glomerular or non glomerular bleeding (Brich,et a1,1979, Passett, et a1,1982 and Riszoni, et al, 1983).This work aims by using Wright's stain to demonestrate the morphology of R.B.C's in cases of hematuria whatever the cause to localise the source of hematuria. These study were included 50 child. The patients were outpatient of El-Ahrar hospital clinic at Zagazig. They referred to the pediatric departement complaining from hematuria. They aged 3-13 years (9 females and 41 males). Blood and urine samples were collected from children and examined for blood picture, serum urea and creatinine, routine urine analysis in addition to dried film from the urine sediment stained with Wright's stain for examination of the morphology of urinery R.B.C's.In these study examination of the dried film stained with Wright's stain for 'examination the morphology of the R.B. C's to differentiate glomerular from non glomerular hematuria. In glomerular lesion the urinary red cells shows marked distortion in shape and size "dysmorphic cells and in nonglomerular lesion the urinary red cells are uniform in shape and size similar to the R.B.C's in peripheral blood " eumorphic_oells. The present study shows that examination of the morphology of the urinary red cells are essential in differentiation of the glomerular lesion from non glomerular lesion in routine urine examination as a prelimenary step in evaluation of children with hematuria, so the diagnostic studies directed toward the site of hematuria.