Introduction

By the age of 7 years, approximately 8% of girls and 2% of boys will have had at least I urinary tract infection. Although death is rare, hospitalization is frequently required (40%) , particulary in infancy. Transient damage to the kidneys occurs in approximately 40% of children affected, and permanent damage occurs in approximately 5%, sometimes even after a single infection. Children who have had infection are at risk of further infections, with this risk being from 10% to 30%. (***Williams et al., 2001***).

Urinary tract infections account for more than 7 million visits to physicians offices in the United States (***Patton et al, 1991***) and responsible for 1 million hospitalizations a year (***Roberts et al, 1994***) with uncomplicated pyelonephritis accounting for at least 250,000 of these hopitalization (***jaccobson et al, 1994***).

The reminder are for diagnostic studies or for complicated pyelonephritis associated with stone, obstruction, instruments, (***Ronald et al, 1997***).

Renal scarring is detected by urography in about 10% of children after febrile urinary tract infection . Obstructive urinary tract malformations and vesicoureteral reflux are closely associated with permanent renal damage but are not prerequisites. Delay in antibiotic treatment and recurrent in fections are other risk factors for development and progression of renal scarring.(***Williams et al., 2001***).

Compared to Commonly used screening methoods such as, leucocyte count and other inflammatory markers such as interleukin – 6, interleukin-8 and interleukin-receptor antagonist, in predicting serious bacterial infection in children with Fever without localising signs. (***Moulin : et al,2001***).

In critically ill children procalcitionin concentration is a better diagnestic marker of sepsis than c-reactiveprotein and serum amyloid. (***Enguix et al 2001***).

Serum procalctionin levels were increased significantly in children with Febril urenary tract infection when renal parenchymal involvement. (***Benador, et al ,1998***).

Aim of this work

The aim of this workis to use procalcitonin as a marker for UTIs diagnosis and differentiate the upper from the lower UTIs to jadge the prognosis of treated cases comparing its results to other marker as C.R.P , urine culture and W.B.Cs.