

# English summary

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Urinary tract infection is a common cause of human illness and failure to diagnosis and treat it properly can lead to further chroinc morbidity . Febrile urinary tract infection is afrequent pediatric pathology .

In our study is carried on 15 cases with urinary tract infection by pus cells in urine  $\geq 20$  /ml and 10 control from Banha University hospital – section of pediatric.

All cases under

- 1- Complete personal history.
- 2- Clinical Examination.
- 3- Urine analysis.
- 4- Urine culture.
- 5- C.B.C.
- 6- C-reactive protien.
- 7- Abdominal ultrasonography.
- 8- Serum procalcitonin.

The colected data were statistically analysed and the result were presented in tables .

- our results showed that

- 1- The studied groups were more in femal than male for the same age ( 73.3% vs 28.7%)  $P < 0.05$ .
- 2- The mean age for studied groups ( $9.9 \pm 3.6$  years) and the mean temperture(  $38.3 \pm 0.7$  °C).
- 3- The mean pus cells for studied groups ( $102.2 \pm 23.9$ ) in urine analysis for cases.

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- 4- The mean for serum creatinin for studied groups (  $1.27 \pm 0.6\text{mg}$ )  
 $P < 0.01$  .
  - 5- The mean for Procalcitonin to studied groups befor treatment ( $1.67 \pm 0.9\text{ng}$ )  $P < 0.001$ .
  - 6- The mean for Procalcitonin to studied groups after treatment ( $0.76 \pm 0.36 \text{ ng}$ )  $P < 0.001$ .
  - 7- The mean for Procalcitonin to studied groups befor treatment for upper UTIs ( $2.38 \pm 1.02 \text{ ng}$ ) decreased to ( $1.02 \pm 0.38\text{ng}$ ) after treatment .  $P < 0.001$ .
  - 8- The mean for Procalcitonin to studied groups befor treatment for lower UTIs ( $1.14 \pm 0.2 \text{ ng}$ ) decreased to ( $0.59 \pm 0.23\text{ng}$ ) after treatment .  $P < 0.001$ .
  - 9- About 80% for all cases retarin for normal level Procalcitonin and 20% remain abve normal after treatment but urine culture return – ve , CRP become normal.
  - 10- Sensitivity of Procalcitonin for +ve case of urine culture 84.6% and specificity 50% .
  - 11- The mean for C-reactive protien to studied groups ( $37.3 \pm 19.5\text{mg}$ )
  - 12- Sensitivity for leucocytic count , C-R protein ,Urine culture , Procalcitonin for pus cells are 66.7% , 66.7% , 86.7% , 80% respectivlty , Predictive value for +ve cases 71.4% ,76%, 86.7% ,92% for leucocytic count , C-R protein ,Urine culture , Procalcitonin thus Urine culture and Procalcitonin are good markers for UTIs than leucocytic count and C-reactive protien .
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13-specificity of procalcitonin , urine culture, C-reactive protein, W.B.Cs are 90%, 80% , 70% , 60% respectively Predictive value for - ve cases for procalcitonin , urine culture, C-reactive protein, W.B.Cs are 75%, 80% , 58.3%, 54.5% respectively

14- In the view of this data it was concluded that children with UTIs can diagnosis by Procalcitonin, Urine culture , leucocytic count , C-reactive protien but Urine culture is more marker than Procalcitonin and Procalcitonin more than leucocytic count.