

THE VALUE OF AXILLARY TEMPERATURE AT DIAGNOSIS TO DETERMINE THE LOCATION OF URINARY INFECTIONS

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Objective: To know the value of fever to determine the urinary infections(UTI) location, compared to indicators based on blood analyses: erythrocyte sedimentation rate(ESR), C-reactive protein(C-RP) and interleukin 6(IL-6)

Materials and methods: The study was carried out on 35 children (10 males) diagnosed with UTI who had undergone renal scintigraphy; 18 (4 males) showed scintigraphic alterations compatible with acute pyelonephritis(APN), and 17 (6 males) showed a normal renal scintigraphy. At diagnosis, their axillary temperature(AxT) was taken and a blood sample drawn to determine ESR, C-RP and IL-6. The diagnostic usefulness of an AxT>38°C was compared to that of a ESR>20 and a C-PR and IL-6 higher than normal values, and to the highest diagnostic efficiency of the latter two indicators, determined by ROC curves. The diagnostic value of the different procedures was determined based on an assessment of their sensitivity(S), specificity(E), positive predictive value(PV+), negative predictive value(PV-) and probability quotient(PQ).

Results: See Table 1:

Conclusions: AxT>38°C, ESR>20 or C-RP o IL-6 higher than their normal range were objetived in all cases of APN, but these are not very specific data of renal involvement in UTI. Only very high serum levels of C-PR and IL-6 have a high PV+ for the diagnosis of APN. However, the lack of fever when a UTI is diagnosed practically rules out the possibility of APN.

| | S | E | PV+ | PV- | PQ |
|----------------|------|------|------|------|------|
| AxT>38°C | 1 | 0.53 | 0.69 | 1 | 2.12 |
| ESR >20 | 1 | 0.43 | 0.62 | 1 | 1.75 |
| C-PR > 5mg/l | 1 | 0.47 | 0.66 | 1 | 1.88 |
| IL-6 >4pg/ml | 1 | 0.62 | 0.75 | 1 | 2.63 |
| C-PR > 70mg/l | 0.77 | 0.79 | 0.87 | 0.79 | 3.66 |
| IL-6 > 15pg/ml | 0.55 | 0.87 | 0.83 | 0.63 | 4.23 |

