

THE IMPORTANCE OF URINE CULTURES IN THE FOLLOW-UP AFTER FIRST FEBRILE UTI

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ABSTRACT

Background: Studies evaluating the role and utility of the routine follow-up of urine cultures after the first febrile urinary tract infection are limited. Was evaluated the validity of routine follow-up urine cultures in a group of children who had their first episode of urinary tract infection at the age_of 1month to 6 years. Study design: The research findings are derived from one prospective randomised study; 676 (468 girls) children aged of 1 month to 6 years were included in the study. The time of recurrence and the possible symptoms during the recurrent urinary tract infection (UTI) were also investigated. The follow-up period after the first UTI was of 1 year. Urinalysis and urine culture follow-up were performed every month during the first 6 months and then every other month. The urine was collected by sterile bag collection in all children. Results: were performed 4796 routine urinalysis and urine cultures were obtained; 158 patients (23%) had a positive urine culture during the follow-up, 106 (15,6%) of them were girls. 54 (1,1%) febrile UTI were excluded; 4504 (95%) urine cultures were negative; 68 (1,4%) contaminations; 114 (2,4%) asymptomatic bacteriuria; 56 (1,2%) lower UTI. E. Coli was most frequent micro-organism; it was found in 112 (50%) of all cases and in 77% of upper UTI. The cost of urinalysis was 2,3 euro, that of urine culture was 11,6 euro, that of urine bag was 1,2 euro and that of urine cup 0,9 euro: a total of 16 euro per patient for 1 control. The total cost of 4796 controls was 76.376 euro. Conclusions: We noted a high negative predictive value, which authenticates that a negative urinalysis is followed almost by a negative urine culture. Urine culture follow-up is not necessary for the children after first febrile UTI. Such an approach would result in significant cost savings.

Keywords: urine culture follow-up, febrile UTI