# Introduction
# and aim of the work

Occult bacteremia (OB) means bacteremia without an obvious focus of infection, about 30 % of febrile children, three months to three years old have occult bacteremia, since many children with occult bacteremia may appear relatively well. If occult bacteremia is neglected and not treated It may be localized resulting in meningitis, pneumonia, cellulits or septic arthritis**.** ***(Bhrmann et Al., 2000).***

Procalcitonin (PCT), which is the key precursor of calcitonin, has been reported to be a specific marker of bacterial infection , its cellular origin and its metabolic pathway is not known . PCT had been demonstrated to be released into the blood 3-6 hours after endotoxin injections into humans, Thus the molecule seems to be closely dependent on the cytokine response against micro-organism ***(Monneret et al., 1997).***

Procalcitonin a propeptid of calcitonin devoid of hormonal activity, had been measured in various systemic inflammatory response syndromes including sever infections, burns and heat stroke. Plasma concentration of procalcitonin are very low in healthy individuals (< 0.1ug /L) and increase up to 1700 fold in respond to bacterial endotoxins. PCT had been described recently a marker of infection that can help in the early diagnosis of bacterial neonatal infection and contributes to the differentiation of bacterial versus viral meningitis in children ***(Nadine et al., 1998)***.

It is found that the magnitude of the increase in procalcitonin concentration in systemic viral and localized bacterial infections is much smaller than that after systemic infections with bacteraemia .Procalcitonin concentration decrease with antibiotic therapy ***(Paresh et al.,1994 ).***

Up till now, there is no combination of laboratory tests or clinical assessment completely accurate in predicting the presence of occult bacteraemia.

The aim of the work is a trial to use procalcitonin as a recent diagnostic parameter of occult bacteremia compairing it to other well established tests as complet blood count (CBC) and C-Reactive protein (CRP).