INTRODUCTION

Neonatal sepsis is a blood infection that occurs in infant younger than 90 days old, early onset sepsis occurs in the first week of life and late onset sepsis occurs between days 8 and 89.***(Mandell et al., 2005).***

Neonates are more susceptible to sepsis due to immaturity of immune system and possible genetic predisposition.
(Belling et al., 2004).

Mortality rate in neonatal sepsis may be as high as 50% for infant who are not treated. ***(Kermorvant-Duchemin et al., 2008).***

The clinical signs of neonatal sepsis are nonspecific. ***(A A P , 2003).***

The diagnosis of sepsis required careful clinical suspicion, detailed physical examination and combination of laboratory tests as there isn't one single test that can reliably diagnose sepsis in all neonates. ***(Chiesa et al. , 2004).***

Total leukocyte count, total neutrophil count, immature neutrophil count, immature to total neutrophil (I/T) ratio, immature to mature neutrophil ratio, morphological or degenerative changes in neutrophils and platelet count are used either singly or in combination as early indicators for diagnosis of neonatal sepsis ***(Ng 2004)***.

Acute phase proteins are synthesized by the liver in response to and as part of an immediate inflammatory response to infection or tissue injury ***(Ng, 2004)***.

C reactive protein as a diagnostic marker in neonates has higher sensitivity and specificity than ANC and I/T ratio ***(Ng, 2004)***.

Haptoglobin is one of the acute phase reactant produced by the liver as a part of an immediate response to infection which mostly show increase in infected neonates. ***(Fowlie et al. , 1998).***

Combination of hematological markers and acute phase protein tests may provide a more rapid diagnosis of neonatal sepsis than conventional microbiological methods. ***(Ahyan et al., 2000).***