SUMMARY AND CONCLUSION

Neonatal sepsis is a clinical Syndrome of systemic illness accompained by bactermia occuring in the first month of life .

Cytokines are a group of protein cell regulators,Variously called lymphokines, monokines, interleukines and interferons .

IL-1ra is to rise in neonatal sepsis, Also IL-1elevated but the elevation of IL-1ra many fold higher than Concurrent IL-1 plasma Concentration .

Early and rapid diagnosis of neontal sepsis is important for early initiation of appropriate therapy .

This study was carried out on **(50)** neonates (**33** male and **17** female) classified into;

Gruop (1) ; septic group; Included **20** neonates with sepsis . Sepsis was defined on clinical grounds and a positive blood culture . They were I0male and 10 female . Their ages ranged from 5 to 6 days .

Group (2) : suspected group with -ve blood culture consisted of (**20**) neonates who are suspected for sepsis but without a positve blood culture. Signs suggesting sepsis were; lethargy, apneic Spells, poor peripheral circulation and poor feeding . They were **17** male and **3** female. Their ages ranged from 6 to **7** days .

Group(3) : control group consisted of **(10)** neonates they were 6 male and 4 female their ages ranged form 5 to 6 days.

All neonales were Subjected to the following;

I Full clinical evaluation .

II Laboratory investigations before start of treatment which included;

A: Complet blood count (CBC)

B: C reactive protein (CRP)

C: Erythrocyte sedimentation Rate (ESR)

D: Blood Culture (BC) .

E: Measurment of the plasma level of IL-1band IL-1ra.

We found that; CRP was +ve in (20) cases (100%) in septic group and +ve in (20) Cases (100%) in suspected group and -ve in all control neonates .

ESR ; The mean ESR was signifiantly highre in septic group than Suspected and control group .

WBCs; Septic group as suspected group showed significantly higher WBCs count than Control group

RBCs and HB; Mean of RBCs count and HB were Significantly lower among Suspected group than both septic and cortrol group.

Organisms isolated by blood Culture in Septicemic neonates; The most predominant orgamism was Eloli (25%) followed by staph aureus (15%), coagulase -ve staphylococcus (10%), strepto . Pyogens (15%) , klebsiella (10%), Enterococci (15%), pseudomonas aeroginosa (5%) and Listeria monocytogens (10%) .

The mean plasma level of IL-1ra ; In all neonates in this study showed that there was significantly highr levels of IL-1ra in all septic neonates than suspeted . Also IL-1ra was significantly higher in both septic and suspected neonates than controls .

The mean plasma level of IL-1B ; Was significantly higher in Septic group than suspected group Also IL-1B was signifcantly higher in septic and suspected neontes than controls .

IL-1ra was many fold higher than IL-1B in all groups.

From the work it can be concluded that;

(1)IL-1ra plasma concentrations are significantly increased during neonatal sepsis in comparison with IL- 1ra plasma concentration of newborns suspected for sepsis or control group.

(2) IL-1ra probably plays a role in reducing the actions of IL-1B during neonatal sepsis .

(3) In neonatal sepsis there is significantly rise in IL-1B level than both in neonates with clinical symptoms of sepsis but with negative culture and in healthy neonates.

(4) IL-1ra in neonatal sepsis rises many folds in comparison with IL-1B .

(5) we can use levels of IL-1B and IL-1ra as new parameters in diagnosis of neonatal sepsis .