## SUMMARY AND CONCLUSION

PROM is a perplexing clinical dilemma as regards diagnosis and management. Current trends favor expectant management in preterm premature rupture of membranes in an effort to maximize the benefits of increasing fetal maturity. However, acquired feto-maternal infection in utero is a major threat to the fetus in pregnancies complicated by preterm PROM.

The present study aimed for early detection of chorioamnionitis and evaluate the significance of clinical finding and their correlation with laboratory and bacteriological tests (erythrocyte sedimentation rate, leucocytic count total and differential, c-reactive protein, gram stain and culture for amniotic fluid) in cases of preterm PROM.

The material consisted of 30 pregnant women with gestational age ranged from 26-34 weeks with preterm premature rupture of membranes diagnosed by history, pooled amniotic fluid in posterior vaginal fornix, nitrazine test, fern test and evaporation test.

On admission our patients were neither in labor nor showed clinical evidence of chorioamnionitis.

Basal and laboratory follow up evaluation by CRP, leucocytic count (total and differential), ESR, were done.

In our study the pathological cut off level of c-reactive protein was ≥ 40mg/l according to **(Fisk et al.,1987)** or an increase by ≥ 30% above previous reading **(Romem and Artal,1984)**. An abnormal leucocytic count was considered when total count exceeded 12.500/ml **(Hawrylyshyn et al., 1983)** or when the number of staff cell of differential count was 10% or more **(Dacie and Lewis, 1989)**. The pathological cut off level of erythrocyte sedimentation rate 60 ml/ after one hour **(Fisk et al.,1987)**. Bacteriological amniotic study was done by gram stain and aerobic culture at onset of labor.

Termination of pregnancy was done at onset of clinical chorioamnionitis or onset of true labor pain.

The diagnosis of rupture membrane by nitrazine test occurred in 93.3% of cases and by evaporation test 90%, fern test 83.3% and pooling in posterior fornix 73.3%. The presenting data shows superiority of nitrazine test over other tests used.

Among our cases 16.6% developed chorioamnionitis, this was shown by development of fever and fetal tachycardia ≥ 160/min.in 100%. While, maternal tachycardia ≥ 110/min.

occurred in 60% of cases. Foul discharge and uterine tenderness were not detected due to early interference.

C-reactive protein was above pathological cut off level in all cases of clinical chorioamnionitis 2-4 days before clinical infection. On the other hand, 3 cases showed false elevation of c-reactive protein. The presenting data shows a sensitivity of 100% and specificity of 88.8%.

Leucocytosis was detected in 4 cases of chorioamnionitis which gives sensitivity 80% and specificity 100%.

Erythrocyte sedimentation rate was 2 cases of clinical chorioamnionitis which give sensitivity 40% and specificity 100%.

Bacteriological examination was positive in 3 cases of clinical chorioamnionitis this gives sensitivity of 60% and specificity of 100%.

Our presenting data showed the highest sensitive test was c-reactive protein while the most efficacy test was leucocytic count total and differential 96.5%.

## CONCLUSION

(1) Nitrazine test is more accurate than fern test, evaporation test and pooling amniotic fluid in posterior vaginal fornix in diagnosing premature rupture of membranes.

(2) Fetal tachycardia is the most clinical finding which accompanied fever in cases of clinical chorioamnionitis.

(3) C-reactive protein above 40 mg/l or a rising level by 30% was more sensitive in the diagnosis of chorioamnionitis.

(4) Bacteriological examination of amniotic fluid was positive only in 60 % of cases of chorioamnionitis.