RESULTS

Table 1 shows the characteristics of the 30 cases studied. The range of age was 20-30 years, there was 10 primigravida and 20 multigravida. 13 cases has a gestational age between 26 and 30 weeks and 17 cases between 31-34 weeks.

Table 2 shows the results of different clinical tests used for confirmation of PROM. Positive nitrazine test are present in 28 cases (93.3%). A positive evaporation test in 90%, a positive fern test in 83.3% while the observation of the amniotic fluid in the posterior vaginal fornix was the least common (73.3%).

Table 1: Clinical Characteristics of the Studied Group.

(n= 30 cases)

Character	No.
Maternal age (years):	
20-25	18
26-30	12
Gravidity:	
Primigravida	10
Multigravida	20
Gestational age on admission (weeks):	
26-30	13
31- 34	17

Table 2: Results of different clinical tests used for diagnosis of PROM.

Clinical test	No.	%
+ve nitrazine test	28	93.3
+ve evaboration test	27	90.0
+ve fern test	25	83.3
+ve pooling amniotic fluid in (post. fornix)	22	73.3

According to **Gibbs (1980)** 5 patients (16.7%) developed clinical chorioamnionitis.

Table 3 shows the results of different criteria in the 5 patients. Fetal tachycardia was present in 100% of cases, while maternal tachycardia was present in 3 cases only (60%). Foul smelling of the amniotic fluid and uterine tenderness did not develop in any patient.

Table 3: Results of Clinical parameters in cases of chorioamnionitis.

(n= 5 cases)

Parameter	No.	%
Fetal heart rate ≥ 160/min	5	100
Maternal pulse ≥ 110/min	3	60
Foul smelling of amniotic fluid	0	0
Uterine tenderness	0	0

Laboratory investigations of cases of PROM for diagnosis of chorioamnionitis include CRP levels total and differential white cell count and ESR. The results of laboratory investigations are shown in the following:

1. CRP: Abnormal CRP level were present in 8 cases of which 5 cases showed evidence of clinical chorioamnionitis. While, in the other 3 cases there was fetal tachycardia.

Table 4: Correlation between clinical chorioamnionitis and CRP levels.

Clinical Chorioamnionitis	C.R.P ≥ 10 mg/l or increase by 30% than previous.		Total
	(+ve)	(-ve)	
+ve	5	0	5
-ve	3	22	25
Total	8	22	30

X^2 = 16.9 Sensitivity 100.0% Predictive +ve 62.5%

P < 0.01 Specificity 88.8% Predictive -ve 100.0%

Efficacy 90.0%

There was highly significant correlation between signs of clinical chorioamnionitis and elevated CRP levels (P< 0.01).

The sensitivity and negative predictive value of CRP determination in diagnosis of chorioamnionitis 100 %.

2. Total and differential leucocytic count:

Abnormal total and/or differential count was present in 4 cases all of which showed evidences of clinical chorioamnionitis.

Table 5: Correlation between clinical chorioamnionitis and leucocytic count.

Clinical Chorio-amnionitis	Leucocytic count. +ve	-ve	Total
+ve	4	1	5
-ve	0	25	25
Total	4	26	30
X^2=21.9	Sensitivity 80.0%	Predictive +ve	100.0%
P < 0.01	Specificity 100.0%	Predictive -ve	96.1%
	Efficacy 96.6%		

There was highly significant correlation between signs of clinical chorioamnionitis and leucocytic count (P< 0.01). The specificity and positive predictive value of leucocytic count in diagnosis of chorioamnionitis was 100 %. While its overall efficacy 96.6 %.

3. E.S.R: Abnormal E.S.R. was present in two cases only both of which showed evidence of clinical chorioamnionitis.

Table 6: Correlation between Clinical chorioamnionitis and E.S.R.

Clinical Chorioamnionitis	E.S.R.		Total
	+ve	-ve	
+ve	2	3	5
-ve	0	25	25
Total	2	28	30

X2= 12 Sensitivity 40% Predictive +ve 100%
P< 0.01 Specificity 100% Predictive -ve 89.2%
Efficacy 90%

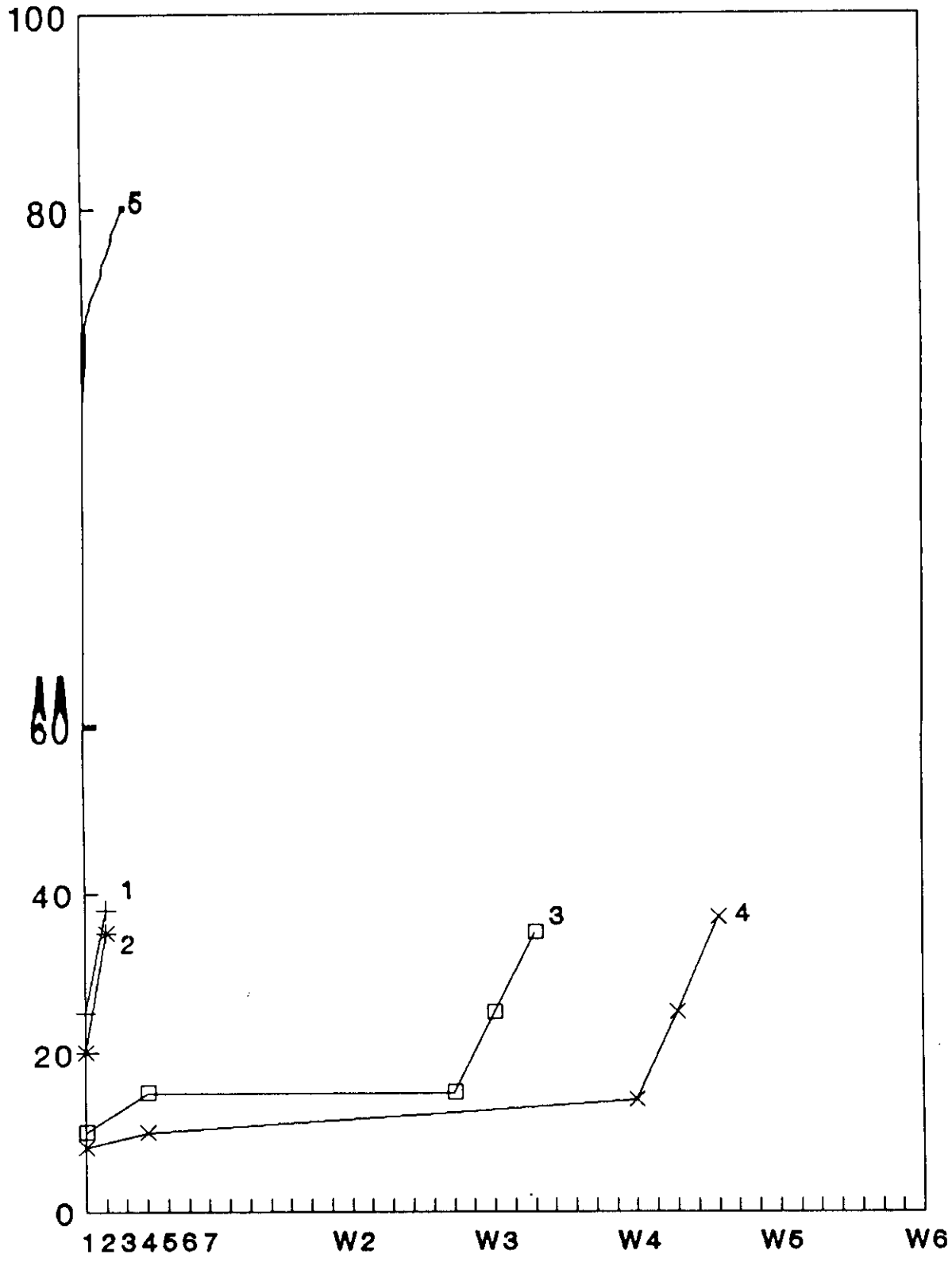
There was highly significant correlation between signs of clinical chorioamnionitis and E.S.R. (P<0.01) The specificity and positive predictive value of E.S.R. estimation was 100%. While , its overall efficacy 90%.

Correlation between abnormal laboratory tests and time of occurrence of clinical chorioamnionitis:

In the 5 cases that showed evidence of clinical chorioamnionitis, CRP showed abnormal values 2-4 days before evident clinical chorioamnionitis. while, the differential leucocytic count was abnormal 2 days before in one case. Total leucocytic count and E.S.R. was coincident with clinical chorioamnionitis.

Figure (1) shows serial levels of CRP in relation to the onset of clinical chorioamnionitis. CRP was abnormaly high 3 days before clinical chorioamnionitis in case No. 5, and showed an increase by more than 30% 4 days before chorioamnionitis in case No. 4, and 2 days before clinical chorioamnionitis in cases Nos., 1, 2, and 3.

Fig. (1)



Bacteriological diagnosis of chorioamnionitis was made when Gram stain and/or culture of an amniotic fluid sample showed the presence of bacteria. Amniotic fluid sample was taken only at early labor either by sonographic guided amniocentesis, by punctur of lower segment during C.S. or through vaginal aspiration.

Table 7: Methods of Obtaining amniotic fluid sample.

Method	No.
Amniocentesis	17
Punctur of lower Uterine segment at C.S.	5
Vaginal	8
Total	30

Gram stain examination and/or culture of amniotic fluid was positive in 3 cases (Streptococci in 2 cases and Streptococci + Staphylococci in one case), all of which, showed evidence of clinical chorioamnionitis.

Table 8: Correlation between clinical signs of chorioamnonitis and bacteriological examination of amniotic fluid.

Clinical Chorio-amnionitis	Bact. Chorioamnionitis +ve	Bact. Chorioamnionitis -ve	Total
+ve	3	2	5
-ve	0	25	25
Total	3	27	30

X2= 16.7 Sensitivity 60% Predictive +ve 100.0%

P< 0.01 Specificity 100% Predictive -ve 92.5%

Efficacy 93.3%

There was highly significant correlation between clinical chorioamnionitis and bacteriological examination of amniotic fluid (P< 0.01).The specificity and positive

Table (9) shows clinical,laboratory and bacteriological feature of cases that developed chorioamnionitis increase fetal heart rate with abnormal CRP levels was present in 100% of cases, leucocytosis was present in 80% of cases, increase maternal pulse and positive bacteriological examination of amniotic fluid was present in 60% of cases, tthe least common finding was an increase ESR in 40% of cases.

Table (9): Clinical, laboratory and bacteriological features of cases that developed chorioamnionitis.

No. of cases		1	2	3	4	5
Clinical chorio-amnionitis	Increase maternal pulse	+	+	+	-	-
	Increase fetal heart rate	+	+	+	+	+
	Uterine tenderness	-	-	-	-	-
	Foul discharge	-	-	-	-	-
Laboratory Chorioamnionitis	CRP	+	+	+	+	+
	Lecucytosis	+	+	+	+	-

Table (10): Method of delivery.

Method of delivery	No
C.S	5
Normal vaginal delivery	25
Total	30

Table (11): Characteristics of fetal out come in study group (n = 30)

Character	No
Latent period	
1 - 2 days	5
3 days	18
7 days	4
> 7 days	3
Fetal weight (gm)	
1400 - 1900	20
2000 - 2500	10
Apgar scor in 5 min	
≤ 7	17
≥ 7	13