



CRP and spontaneous onset of labour within 24 hours in term SROM



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Introduction: Term spontaneous rupture of membrane (Term-SROM) accounts in approximately 8 percent of pregnant women and 60-80% of them delivered spontaneously within 24 hours from membrane rupture. The additional risk of fetal and maternal infection linked with duration between membrane rupture and delivery.

Objective: This study was planned to assess whether clinical characters and CRP level at admission can be used to predict the vaginal delivery within 24 hours in term-SROM women.

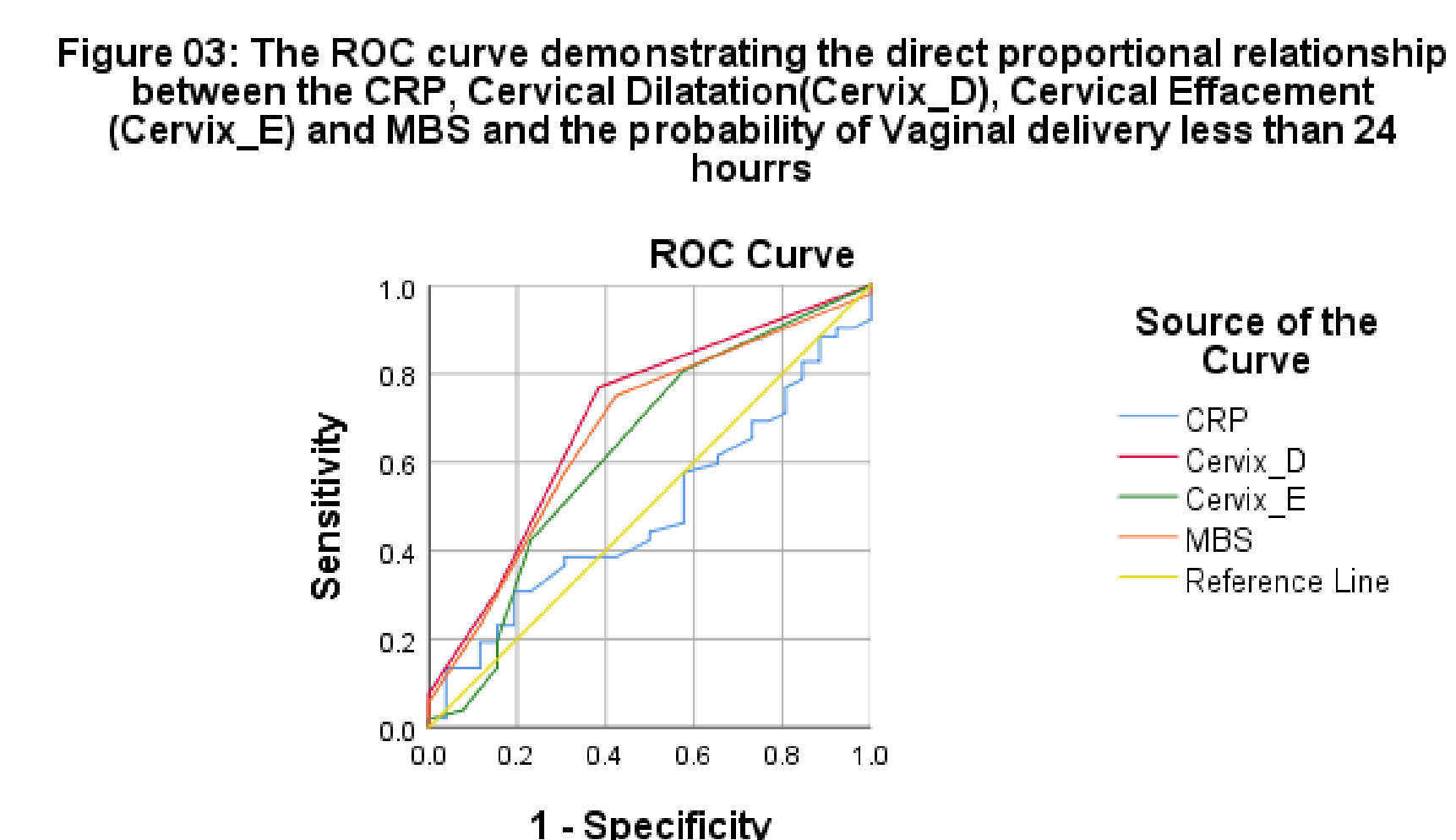
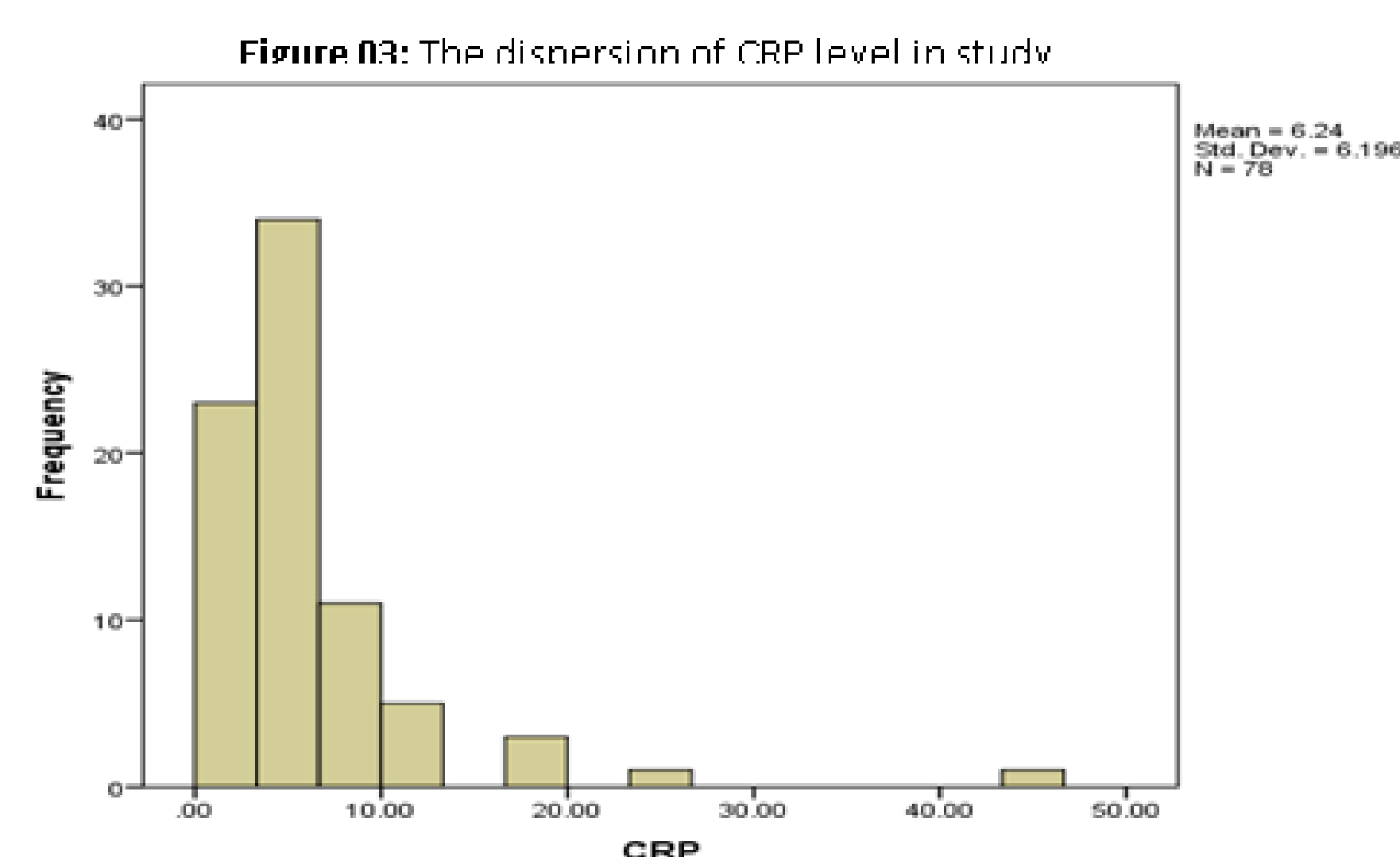
Design: This cross-sectional descriptive study was carried out in antenatal wards of Jaffna teaching hospital, Sri Lanka over the period of six months.

Method: All uncomplicated, singleton term-SROM women with cephalic presentation was recruited for this study. The women with established labour at admission, women delivered within 8 hours from membrane rupture and those women underwent caesarean delivery for either maternal or fetal indication were excluded from the study. The maternal and clinical characters, Modified Bishop Score (MBS), C-Reactive Protein (CRP) level, and outcome of labour were collected by direct interview and from clinical notes. Data were collected in the predesigned data sheet and analyzed by using SPSS 21.

Results: A total of 78 women were recruited for analysis from 139 term-SROM women, 41(67.95%) of them were primigravidae. The mean age was 28.51(SD $\pm$ 4.56) years and mean gestational age of membrane rupture was 272.41 (38 weeks + 6 days) (SD $\pm$ 6.64) days. 66.6% of women delivered the baby vaginally within 24 hours from the membrane rupture. The mean birth weight was 3070 g (SD $\pm$ 390g).

Fifty-five women (70.5%) were presented with labour symptoms and, backache was the commonest presentation among them. The mean MBS was 6.37 (SD $\pm$ 1.31) and, 51.3% of women with MBS $<$ 6 and 19.2% of women with MBS $\geq$ 8. The mean CRP level was 6.24 mg/L and 25th, 50th and 75th percentiles were 3.0, 5.0 and 7.52mg/L respectively.

The odd ratios were favors for vaginal delivery within 24 hours among women with admission MBS $\geq$ 6 (OR 4.09, p= 0.005) and cervical dilatation $\geq$ 2 Cm (OR 5.33, p= 0.001). There was no statistically significant difference in CRP level for vaginal delivery less than 24 hours compared to vaginal delivery more than 24 hours (OR 1.8, 95% CI 0.78 – 3.56). The ROC curve shows significant relation of MBS at admission and vaginal delivery less than 24 hours (AUC: 0.670, 95%CI 0.542- 0.788, p=0.015), with the sensitivity of 75% and specificity of 58% for the cut off 6 and sensitivity of 58% and specificity of 70% for the cut off of 7.



Conclusion: The vaginal delivery within 24 hours in term-SROM women can be predicted by cervical dilatation and MBS at time of admission but not by the CRP level.

Reference

1. Duff P. Premature rupture of the membrane at term. *N Engl J Med* 1996; **334**: 1053-1054.