ABSTRACT

Objective

To assess the feasibility and usefulness of five second fractionated intermittent auscultation and to compare it with the conventional fifteen-minute interval continuous auscultation over one minute in detecting Fetal heart rate decelerations during labour.

Design

Prospective observational study.

Setting:

Ward 29, Teaching Hospital, Galle.

Subjects and method:

Nine hundreds consecutive pregnant women who were in spontaneous labour between 38 to 41 weeks of gestation with singleton cephalic presentation and normal foetal heart rate were recruited for the study. Mothers having Gestational diabetes, fetal growth restriction, abnormal Foetal heart rate on admission, pre-eclampsia, prelabour rupture of membranes >24 hours were excluded from the study. In addition to conventional fifteen minute interval continuous auscultation over one minute and Electrical fetal monitoring of selected high-risk cases, Five

second fractionated intermittent auscultation carried out using Pinard stethoscope. The Main out come measure was the five minute Apgar score. Five second fractionated Fetal heart rate below 9 and above 13 were taken as abnormal

Results:

There were 27(3%) cases with five min; Apgar score <7. Out of these 22 (81%) cases were detected by fractionated intermittent auscultation (FrIA), giving a sensitivity of 81%, Specificity of 97%, Positive predictive value of 55%, and a negative predictive value of 99 %. Fifteen cases were detected by conventional fifteen minute intermittent auscultation, giving a sensitivity of 55%, specificity of 98%, positive predictive value of 60% and a negative predictive value of 98%. Detection rate of fetal heart rate deceleration was significantly higher ($p < 0.05$) when fractionated intermittent auscultation was used.

Conclusion:

Fractionated intermittent auscultation is feasible and a useful method of intra partum fetal monitoring and it is superior to conventional method of intermittent auscultation using Pinard stethoscope.