

Relationship between abnormal cardiotocograms, meconium staining of the amniotic fluid, umbilical arterial doppler flow, and apgar score with cord blood PH.

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Objectives of this prospective study was to ascertain the value of these tests in detecting foetal acidosis. All the mothers from 25 to 35 years of age who underwent cesarean sections performed by the author from the 1st of June to 31st of December 2002 excluding ones who are in the active phase of the labour, diagnosed IUGR and mothers with any medical disorder (n=95). CTG, S/D ratio of the umbilical arterial Doppler flow, cord arterial blood PH were performed in all. Color of the amniotic fluid and Apgar score were recorded. CTGs were classified according to Mayer-Menk scoring system and the traditional method. The cut off values of pH for acidosis and the S/D ratio were taken as 7.2 and 3.0 respectively. CTG both and the Apgar score had the lowest sensitivity (25 percent). But specificity and positive predictive values of Apgar score were 100 percent. The negative predictive value was above 90 percent in all except when the meconium status of amniotic fluid with CTG in above 90 percent in all except when the meconium status of amniotic fluid with CTG in 47.82 percent. CTG score and Apgar score had good positive correlation with cord blood pH (Spearman's correlation coefficient = 0.486.030 and p=0.000,0.003 respectively). None of the above tests is good as a screening test for foetal acidosis, systolic/ diastolic ratio of the umbilical artery Doppler flow has no relationship with acute foetal acidosis when there is no intra uterine growth restriction. Even after combining abnormal CTG with meconium status of the amniotic fluid did not improve the ability to detect foetal acidosis. The Apgar score and the CTG score correlated with cord arterial blood pH with a very high significance.