Role of Colour Doppler Study in Management of Non Immune Hydrous Foetalis.

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Objective : In this study middle cerebral artery (MCA) peak systolic velocity(PSV) and ductus venosus (DV) spectral waveform was measured with doppler to investigate their role in management of non immune hydrops foetalis.

METHOD : 30 singleton pregnancy with non immune hydrops foetalis were included in the study. The MCA-PSV and DV spectral waveforms were recorded in all fetuses. If MCA-PSV values greater than 1.50 MoM, fetal blood sampling by cordocentesis was performed and managed accordingly for anaemia. In fetuses with abnormal DV spectral waveform, cardiovascular causes and chromosomal abnormalities

were examined.

RESULT : 11 of 30 foetuses had MCA-PSV values greater than 1.50 MoM. The causes of anaemia were investigated and include severe maternal anaemia, pre- eclampsia, cytomegalovirus infection etc. 8 cases showed reversed flow in the DV; of them 7 had congenital heart disease on echocardiography; and 1 had a normal echocardiogram, but had an abnormal karyotype.

CONCLUSION : Estimation of the MCA-PSV and DV spectral waveforms during colour doppler study of these foetuses with nonimmune hydrops foetalis can help in their categorisation and further management which improved their outcome.

Keywords:
nonimmune hydrops; middle cerebral artery; ductus venosus; Doppler;obstetrics