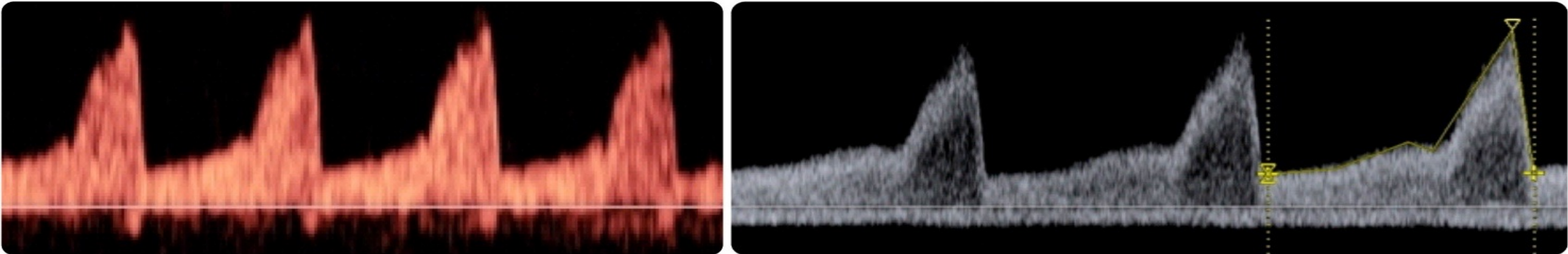


Radiodiagnosis umbilical artery color doppler in the prediction of intrauterine growth retardation and its correlation with histopathology of placenta



Background: Intrauterine growth restriction (IUGR) define as baby with birth weight below tenth percentile of average for gestational age .one of the most common and complex problem during pregnancy **Objective:** The present study was conducted to study placental pathology in relation to uterine artery Doppler, umbilical artery Doppler in high-risk pregnancy.

Patients and methods: A prospective study was carried out in Sulaimania Maternity Hospital in Sulaimani City/Iraq from 1st October 2020 to 31th October 2021. The study included 50 pregnant women with (IUGR) diagnosed by umbilical artery colour Doppler.

Results: The women’s age was ranged from 20 to 43 years, %70 of them had history of previous IUGR.Gross examination of the placentas and fetal membranes revealed presence of placenta infarction and fibrin deposits in 50% and 20% of the women, respectively. Microscopic examination showed cytotrophoblastic hyperplasia, chorioangiosis and hyperemia, and perivillous fibrin deposition in 50%, 20%, and 30% of the women, respectively. Umbilical artery color test showed reversal and diastolic blood flow in 62% of the women. The results revealed that the women’s history of previous IUGR and their maternal age had a significant correlation with the findings obtained from gross and microscopic examinations of placenta and fetal membranes (p- value<0.05). Moreover, there was a significant correlation between the microscopic findings of placenta and fetal membrane and the results of umbilical artery color (p-value=0.02).

Conclusion: History of previous IUGR and advanced maternal age are significant risk factors for developing IUGR; therefore, women of advanced age and those with a history of previous IUGR pregnancy need to be examined and cared well during their pregnancy for early diagnosis and treatment of IUGR.