ROLE OF MRI IN THE DIAGNOSIS OF PLACENTA ACCRETA: MRI VERSUS DOPPLER ULTRASOUND

A. Khlifi, S. Chachia, W. Zarrouk, F. Hachani, S. Boughizane, A. Chaieb, H. Essaidi, H. Khairi

Objective:
To compare the sensitivity and the diagnostic accuracy of color Doppler ultrasound and MRI in the prenatal diagnosis of placenta accreta.

Patients and methods:
A retrospective study done in gynecology obstetrics CHU Farhat Hached Sousse (Tunisia) over a period of 5 years (September 2007 - August 2012). We were able to identify 36 observations of patients supported as having a placenta accreta. Data Doppler ultrasound and MRI were compared with reference to operative and pathological data.

Results:
The diagnosis of placenta accreta was confirmed intraoperatively in 34 cases among 36 (94%). Five of our patients were not explored preoperatively and the diagnosis was made after an emergency caesarean section.

The color Doppler ultrasound was performed in 31 cases. He evoked the diagnosis of placenta accreta in 19 cases (61.3%). The diagnosis of placenta accreta suspected by Doppler ultrasound in two cases was invalidated intraoperatively. The Doppler allows prenatal diagnosis of placenta accreta with a sensitivity of 58.6%, a specificity of 98%, NPV of 89% and PPV of 89.5%.

MRI was performed in only 19 cases among 31 cases that had a color Doppler and diagnosis it implied Accreta placenta in all cases. The diagnosis was reversed in one case. This review has to suspect the diagnosis with a sensitivity of 100%, specificity 99%, PPVof94.5% and a NPV of 100%.

Conclusion:
Placenta accreta is a severe obstetric emergency. Prenatal diagnosis is essential to reduce morbidity and mortality Maternal and Fetal. Comparing color Doppler ultrasound and MRI, the latter is more sensitive and specific in the diagnosis of placenta accreta.