

Placenta accreta: anatomopatological and radiological confrontation

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Objective

The placenta accreta is a rare disease with increasing incidence over the past years. An effective prenatal diagnosis is essential to optimize the management and reduce the morbidity related to this condition. The aim of this work was to evaluate the contribution of imaging (Doppler ultrasound and MRI) in the antenatal diagnosis of placenta accreta.

Methods

Our study was retrospective, descriptive and analytical. It was conducted in the Obstetric Gynecology Department C of the National Center for Maternity and Neonatology of Tunis during the time period from January 1, 2014 to December 31, 2017.

Results

Thirty-six cases of placenta accreta were identified, corresponding to 0.28% of deliveries. The mean age of the patients was 35 years old with a mean parity of 3.22 pregnancies. Three main risk factors were evaluated in our study: the history of caesarean section (found in 94.44% of our patients), the low insertion of the placenta (94.44% of the patients) and the endo-uterine movements (80% of the patients). Antenatal ultrasound was used to assess the risk of placenta accreta in 29 of the 36 patients with a good sensitivity of 80.55% and a good specificity around 71%. The presence of placental gaps was the most sensitive ultrasound sign (77.77%) and the most specific one (77.33%). Pulsatile turbulent flow in placental gaps was the most sensitive (72.2%) and most specific (81.33%) among Doppler signs. In our series, MRI was able to lead to the diagnosis of placenta accreta in 30 patients. It was a very sensitive (86%) and very specific (79.1%) examination. Intra-placental black bands in T2 was the most sensitive and specific MRI sign (82.75% and 75%, respectively). Finally, the diagnosis of abnormal placental insertion was confirmed by pathological analysis in 25 cases (69,44%) with 17 placentas accretas, 5 placentas incretas and 3 placentas percretas.

Conclusion

Ultrasonography remains the most commonly used technique in the screening for placenta accreta if performed by a trained operator. The additive value of MRI appears perfectly clear, especially in the case of posterior placenta or placenta percreta, provided that there is good contrast between the placenta and the myometrium.