Prenatal diagnosis of abnormal placental adherence in pregnancies complicated by placenta previa at the third trimester of pregnancy: The role of ultrasound, color doppler and microscopic hematuria

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Objectives: To prove the usefulness of grey scale sonography, color pulsed Doppler and microscopic hematuria in the prenatal diagnosis of abnormal placental adherence in pregnancies complicated by placenta previa at the third trimester of gestation.

Materials and methods: Thirty women with known placenta previa at the third trimester were consented for transabdominal sonography, color and pulsed Doppler, and urine testing for microscopic hematuria. Confirmation of abnormal adherence of the placenta was made on histological examination in patients who required cesarean hysterectomy and by clinical assessment during cesarean section.

Results: A total of 30 women with placenta previa were included and prenatal diagnosis of placenta accreta was made in five women. The diagnosis was made using grey scale ultrasonography in all cases, with one false positive case. Morphological criteria of placenta accreta by color Doppler ultrasound had 100% sensitivity, 100% specificity, 100% positive predictive value and 100% negative predictive value for making the prenatal diagnosis. Sixteen of the 30 women had microscopic haematuria, including the five women who had placenta accreta, therefore giving sensitivity 100%, specificity 56%, PPV 31%, and NPV 100%

Conclusion: Although the numbers are small, the results of this study suggest that abnormal placental adherence can be diagnosed antenatally by ultrasound and color Doppler with a great accuracy. Microscopic haematuria is only a good negative test. This prenatal diagnosis improves forward planning of delivery of such women.

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