Prenatal diagnosis of fetal neuroblastoma: A report of four cases

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Introduction

We communicate prenatal diagnosis of fetal neuroblastoma in four cases.

Cases

Case 1. Patient was referred at 32 weeks of gestation with diagnosis of kidney cyst. Ultrasound examination and MRI showed a 33 mm diameter heterogeneous lesion located on the right supra renal gland, no vessels were observed. Neuroblastoma diagnosis was proposed. The newborn was delivered by Caesarean section at 37 weeks, and neuroblastoma diagnosis confirmed. Conservative management was decided.

Case 2. Female patient referred with 30 weeks pregnancy. Ultrasonography examination and fetal MRI revealed a 25 mm hyper echogenic mass above the right kidney, no vascularization was found in the lesion. Due to these findings, neuroblastoma diagnosis was made. Caesarean section was performed at 38 week gestation, and neuroblastoma diagnosis confirmed. Conservative management was decided, but 2 years later MRI showed malignant signs. Surgery was performed with a total excision, with subsequent favorable evolution.

Case 3 Patient was referred at 28 weeks. Ultrasound examination shows hyper echogenic image in left adrenal of 14 mm diameter. Neuroblastoma diagnosis was made. Newborn was delivered at 38 weeks. Newborn ultrasound hemorrhage was suggested.

Case 4, Patient referred with a 34 week pregnancy. Ultrasound examination showed a 70 mm, not vascularized hyperechogenic image located on the left kidney upper pole. The lesion compressed the aorta and inferior vena cava, also fetal hydrops and polyhydramnios was seen. Neuroblastoma diagnosis was suggested. Caesarean section was performed at 34 weeks. 6 days later due to multiple organ failure, the newborn dies. Autopsy confirmed neuroblastoma diagnosis plus heart, liver and lung metastasis.

Conclusion

Congenital neuroblastoma is a poorly differentiated embryonic nerve cell tumor. The adrenal gland is on 90% of the cases compromised when is prenatally diagnosed. Fetal MRI can be a useful for staging and evaluating metastases.