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CASE REPORT
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Pregnancy with Hepatoblastoma

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Abstract:

Congenital hepatoblastoma is a rare primary liver malignancy that most commonly occurs in newborns with a prevalence of 1.2 -1.5 per million children per year. The etiology of congenital hepatoblastoma is unclear. Congenital hepatoblastoma is diagnosed in the fetal period and 3 months after birth. The ultrasound image revealed a heterogeneous hyperechoic mass in the liver lobe with clear boundaries and when the baby was born there was a clinical mass in the stomach, increased SGOT and SGPT and direct, indirect and total bilirubin and. Gold Standart diagnosis is based on histopathological examination. This study is a Case Report. A women 24 years old , 39-40 weeks gestasional age came PONEK Ulin Hospital with in labor. Patient came in condition active phase of labour with history of labor spontan vertex delivery. There is no congenital abnormalities history of family. During antenatal care, US at 35 weeks gestasional age result congenital anomaly regio abdomen suspected mesenterial mass. Baby born spontaneous delivery Male/2845g/47cm/AS 8-9-10 and do neonatologist evaluated US Lobus Hepar sinistra size 6.2 x 3.7cm susp hepatoblastoma and intraabdominal organs within normal limits. Laboratory result was SGOT and SGPT 106/26 ul, AFP >2000.00ng/ml, Bilirubin direct /indirect /total 0.9/10.9/11.9 mg/dl and FNAB result round cell tumor. Congenital hepatoblastoma is a rare primary malignancy of the liver in newborns and causes minimal complications during pregnancy but has severe consequences after birth. Postnatal treatment with surgery, chemotherapy and liver transplantation according to the severity of the hepatoblastoma lesion.

Keywords: Gravida; Aterm; Hepatoblastom

Introduction

Hepatoblastoma is rare hepatic malignancy in newborns. It is about 0,5 – 1% of all pediatric cancers. While rare overall, the incidence of hepatoblastoma has been increasing worldwide. Its etiology remains unknown but reported associations cytogenetic abnormalities, such as gain of chromo such as 2, 8, 18, or 20. Others were associated with familial adenomatous polyposis, Beckwith-Wiedemann syndrome and hemihypertrophy. Prenatal diagnosis may help parents to screening with ultrasound. The ultrasound examination can do during the early third trimester. The gold standart diagnosis on the histopathology examination.[1-4]

Case Illustration

Mrs RR, 24 year old woman was came to the hospital with chief complain contraction (+) since 7 hours before admitted, bloody show (+) since 3 hours before admitted, watery discharge (-). fetal movement (+) active. On May 25th 2024 : Patient evaluated by MFM and had congenital anomaly susp. abdominal mass. She was adviced to labour and deliver in Ulin Hospital On June 09th 2024 : Patient came to outpatient and reported to SpV MFM and US result Fetal, Single, Live, Intra Uterine, Cephalic Presentation, Gestational Age ~ 37- 38 weeks , placenta implantation in fundus Grade II with sufficient amniotic fluid with congenital anomaly hypohiperechoic mass size 7x6x6.5cm regio abdominal suspected mesenterial mass regio abdomen suspected mesenterial mass and suggested MOD vaginal delivery. On June 19th, 2024 at 01.12 pm baby born SptVtx Delivery Male/2845g/47cm/AS 8-9-10.

Neonatologist doctor plan to check laboratory (Complete blood, AFP, Bilirubin direct/ Indirect and total). Laboratory result Hb: 15.3g/dl, leukocytes 16.600/ul, platelets 109.000/ul SGOT: 106 U/l SGPT: 25 U/l, AFP > 2000.00ng/ml, Bil direct /indirect /total 0/9/10/9/11.8 mg/dl. Result US lobus Hepar sinistra size 6.2 x 3.7cm susp hepatoblastoma and intraabdominal organs within normal limits. Result FNAB round cell tumor sugest to hepatoblastoma.

Figure 1. Ultrasonography MFM in Outpatient

Figure 2. Ultrasonography Radiologist

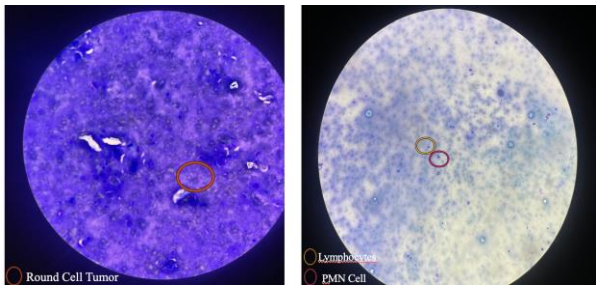

Figure 3. Microcopic examination

Discussion

This case report reports a 34-year-old woman with a diagnosis postpartum spontaneous delivery with congenital abnormalities baby. Patient routinely antenatal care and US third trimester result a large hyperchoic size hypohiperechoic mass size 7x6x6.5cm regio abdominal suspected mesenterial mass regio abdomen suspected mesenterial mass.

After baby delivery neonatologist plan to check laboratory (Complete blood, AFP, Bilirubin direct/ indirect and total). Laboratory result Hb: 15.3g/dl, leukocytes 16.600/ul, platelets 109.000/ul SGOT: 106 U/l, SGPT: 25 U/l, AFP > 2000.00ng/ml, Bil Direct /Indirect / Total 0/9/10/9/11.8 mg/dl. (AFP) is a major serum protein synthesized by fetal liver cells and yolk sac and icreased in Hepatoblastoma that is a malignant tumor of hepatocyte origin that often contains mesenchymal elements. AFP ability to synthesize AFP reflects its fetal origin. This patient found elevated liver fuction enzyme and trombositosis, this finding is in accordance with Shanmugam et al the patients with hepatoblastoma may have Increased liver fuction enzyme, thrombocytosis secondary to thrombopoietin produced by the tumor.5-9

Fine needle aspiration under ultrasound guidance is useful in preoperative diagnosis and categorization in most cases of hepatoblastoma in pediatric units. Gold standar diagnosis of hepatoblastoma was commonly reached by histopathologic analysis. There are two types hepatoblastoma on history the epithelial type and mixed epithelial mesenchymal subtype.

These types have been shown to prognostic and kind of therapy. Hepatoblastoma is futher categorized fetal, embryonic, pleomorphic, macro trabecular, cholangioblastic and small cell undifferentiated types.1,9-12

Patient's Microscopic examination showed the mass was composed of malignant round cell. Malignant small round cell tumors are characterised by small, round, relatively undifferentiated cells. Histopathological examination of Hepatoblastoma showed a multifocal pure epithelial-fetal well-differentiated type of hepatoblastoma with a favorable grade.8-9,12-13

Although congenital hepatoblastoma was reported to be associated with poor outcomes, recent studies show the survival rate had been improved by the use of combined surgical dissection and chemotherapy. 1,13

Conclusions

Antenatal care is very important help parent to discuss with neonatologist and pediatric surgery to plan postnatal management. Golden standart for diagnose hepatoblastoma use histopatology. Postnatal treatment with surgery, chemotherapy and liver transplantation according to the severity of the hepatoblastoma lesion.

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