

Congenital neuroblastoma: A Case Report

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Citation

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Abstract

We report a case of a newborn baby who presented with seizure and examination revealed multiple cutaneous nodules and hepatomegaly. Ultrasound and computed tomographic examination showed left suprarenal mass and multiple metastatic lesions in the liver. Urine Vanillylmandelic acid (VMA) spot test was positive and biopsy from the skin nodules and liver confirmed the diagnosis of congenital neuroblastoma with metastasis.

INTRODUCTION

Congenital malignant tumors are rare, with neuroblastoma accounting for majority of cases. It can present with extensive metastatic deposits in liver, lung, bone, brain and skin and can be diagnosed by ultrasound or CT scan. Urine VMA analysis and biopsy from the metastatic lesions can confirm the diagnosis. Early detection in antenatal stage or immediate postnatal period helps to institute adequate treatment in an early stage.

CASE REPORT

A fifteen days old male baby, born via caesarian section at 38 weeks of gestation, presented with breathing difficulty, generalized seizure and fever. Clinical examination showed multiple cutaneous nodules and hepatomegaly. Routine investigations showed low Hb, minimally elevated ESR and a positive urine VMA spot test. USG showed hepatomegaly with multiple hypo echoic lesions having peripheral halo. The spleen showed minimal enlargement. The left suprarenal area showed a well-defined hypo echoic lesion with central ill-defined area of increased echogenesity and shadowing, suggestive of calcification (figure 1&2).

Figure 1

Figure 1: USG- Liver with multiple hypoechoic nodules



Figure 2

Figure 2: USG-Hetero echoic mass lesion in left suprarenal region.



A CT scan showed a large heterodense mass lesion with calcification involving the left suprarenal gland and multiple metastatic deposits in liver.

Figure 3

Figure 3: CT- Multiples liver metastasis

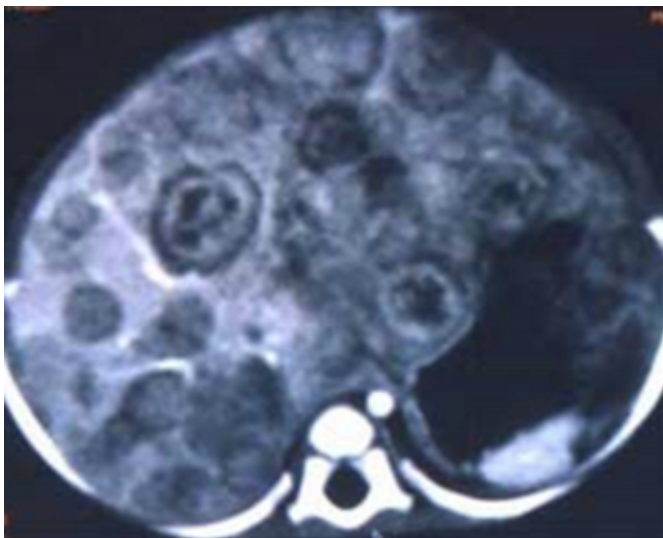
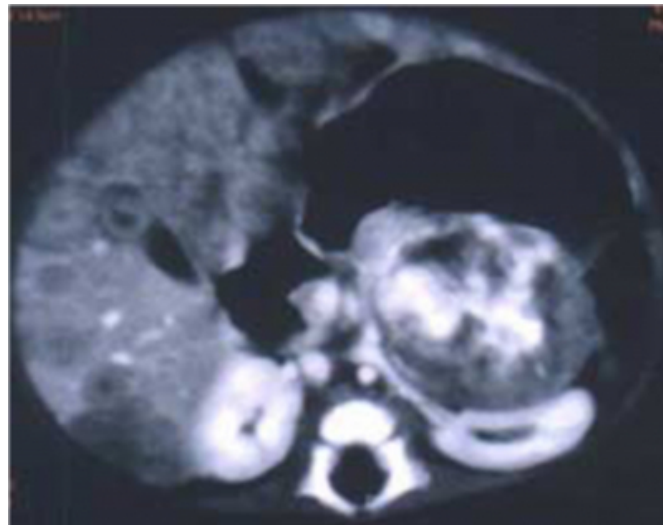


Figure 4

Figure 4: CT- Hetero dense mass lesion in left suprarenal area.



Biopsy from the cutaneous nodules and liver showed sheets of small cells with dark nuclei and scanty cytoplasm with the cells separated by thin fibrous septae, denoting metastasis from the neuroblastoma. The baby died within seven days during the hospital stay.

DISCUSSION

Congenital neuroblastoma is the commonest malignant tumor of the newborn, comprising 20% of all malignancies encountered during the neonatal period ¹. Improvements in prenatal diagnosis with the help of ultrasonography have led to a marked increase in the number of antenatally diagnosed cases of congenital neuroblastoma ². Rare associations of congenital neuroblastoma are nephroblastoma, Beckwith-Wiedemann syndrome ³, DiGeorge anomaly ⁴, adrenal cyst ⁵, renal agenesis, anal atresia, absence of the right thumb ⁶, Ondine-Hirschsprung syndrome ⁷, and neurofibromatosis. ⁸

Unlike other forms of neuroblastoma this type has got excellent prognosis if treated promptly with chemo and radiotherapy. VMA spot test, urine examination for elevated catecholamine by-products and serum tumor markers assessment are some of the frequently used lab investigations. Imaging studies with ultrasound, CT scan, plain x-ray and scintigraphy helps in the localization and staging of the disease. Tissue biopsy and immunocytology of bone marrow aspirates can be used for confirmation.

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