BILATERAL RENAL NEOPLASMS IN GIRL

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ABSTRACT

We like to report a case of bilateral nephroblastoma (Wilms' tumer) in a girl of age 2.5 years considering its rarity.It is the only case of bilateral Wilms' tumor seen by us amongst about thirty thousand people examined by ultrasonography (USG) since 1981.

KEY WORDS Kidney mass,ultrasonography (USG), Wilms'tumor, Nephroblastoma.

INTRODUCTION

Nephroblastoma (embryonal carcinosarcoma or Wilms' tumor) is a triphasic,embryonic neoplasm that contains epithelial,blastemal and stromal elements.It is named after Max Wilms,the great German surgeon (1867-1918).It is similar in overall incidence to neuroblastoma and accounts for about 8% of all pediatric neoplasms.

CASE REPORT

A girl of age two and a half years came for ultrasonography (USG) of abdominal lump.She had hematuria and fever for the last 3 months and she was given homeopathic drugs in her home.The lump was detected 2 months before admission.On examination, her body temperature was 101^0 F and her pulse was 102/minute. Chest Xray showed no abnormality. No ascites was found. The lump on the right side was 10.6 x 8.8 cm in size,echogenically irregular and almost wholly replaced the right kidney. The left kidney was 8.1 x 5.8 cm in size with a small (2 x 1.5 cm) area of inhomogeneous echoes. Biopsy revealed Wilms' tumor,but the patient was lost to follow-up.

DISCUSSION

Nephroblastoma is the commonest solid abdominal mass as well as the commonest renal malignancy of childhood.Its peak incidence is between 30 months and 3 years of age; 78% of all cases are detected between 1 and 5 years of age.[1] The tumor is rarely seen in adults -- a review of the literature revealed 33 cases of adult Wilms tumor with the mean age of the patients being 30 years.USG in this group showed a complex mass with a large cystic component to each lesion.[2] In children, a big lesion is noted that it is generally well-defined on USG but inhomogeneous in its echogenicity.[3] Anechoic areas are seen throughout the mass and correspond to areas of hemorrhage and necrosis. On USG, the lesion is similar in appearance to a mesoblastic nephroma but presents in a different age group.[4,5] Wilms tumor in association with horse-shoe kidney has also been reported.[6] Pulmonary metastases are present in over 10% of patients at the time of initial diagnosis. Metastases to liver and to opposite kidney also occur which is confirmed by CT scans.[1] Wilms tumor is radiosensitive and with combination of chemotherapy (vincristine), it can be curative.[7] The main presenting feature is painless,rapidly growing tumour without hematuria. The tumor grows within its capsule pushing the rest of the kidney to one side.

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When the tumor bursts through the capsule into the pelvis hematuria results.So this is an ominous sign and indicates very bad prognosis.About half of the patients suffer from rise of temperature which adds confusion to the diagnosis. On the right side this condition is confused with liver enlargement and on the left side with splenomegaly.Blood-borne metastasis is early and liver is mainly affected.Very rarely bones and brain may be affected.[8] Technetium 99m methylene diphosphonate (Tc-MDP) scan may show bony metastases and uptake in the primary Wilms' tumor.[9] Sty and collegues reported that Wilms' tumor is the commonest neoplasm to show focal area of reduced or absent radiotracer accumulation.[10] Children with Wilms' tumor and receiving treatment with cyclosporine A are at a risk of developing hypertensive encephalopathy.[11] Wilms tumor occurs bilaterally in 5% to 10% of cases.[12]

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