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RETROPERITONEAL LIPOBLASTOMA IN A THREE-YEAR-OLD CHILD*

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Childhood abdominal masses are most often retroperitoneal in origin, and Wilm's tumor and neuroblastoma account for 90% of the retroperitoneal tumors[1]. Although the lipoblastoma is a rare tumor, and though it is very rarely located retroperitoneally, it should nevertheless be considered in differential diagnosis. In this article we present the case of a histologically proved lipoblastoma detected as an abdominal mass during routine physical examination for diarrhea.

Case Report

A three-year-old girl was admitted with diarrhea subsequently found to be due to giardiasis.

On physical examination, a soft, regular, immobile left hypochondrial mass was palpated. IVP revealed superior lateral displacement of the left kidney, and anterior lateral displacement of the proximal part of the left ureter secondary to a fat dense mass (Figure 1). Ultrasonographic examination showed that the mass was solid and 8 cm in diameter. The other laboratory findings were within normal limits.

A circumscribed retroureteropelvic mass, displacing the kidney and ureter, was easily excised.

The cut surfaces of the mass were gelatinous, and microscopically the tumor had a lobulated pattern. There were lipoblasts in different stages of development (Figure 2), and the pathologic diagnosis was lipoblastoma.

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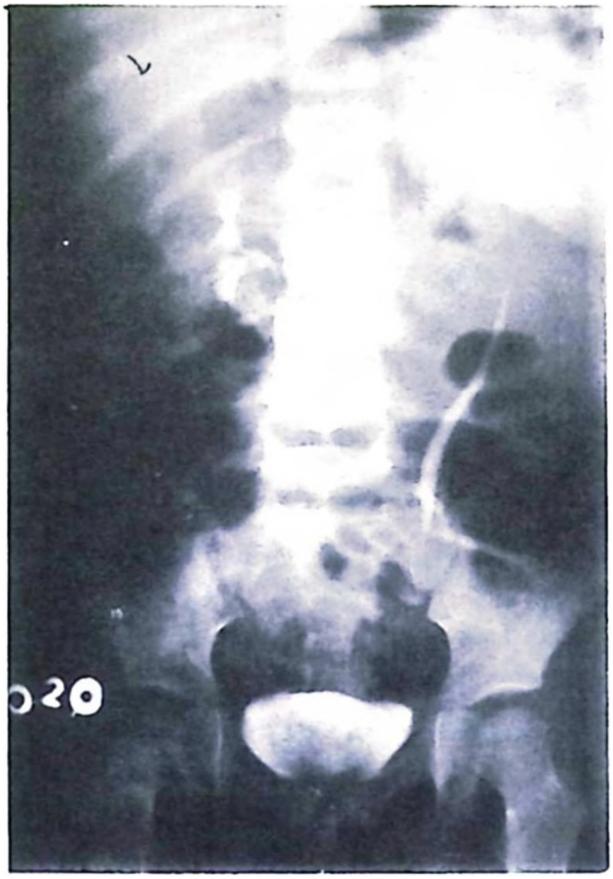

Figure 1

The displacement of left kidney and ureter.

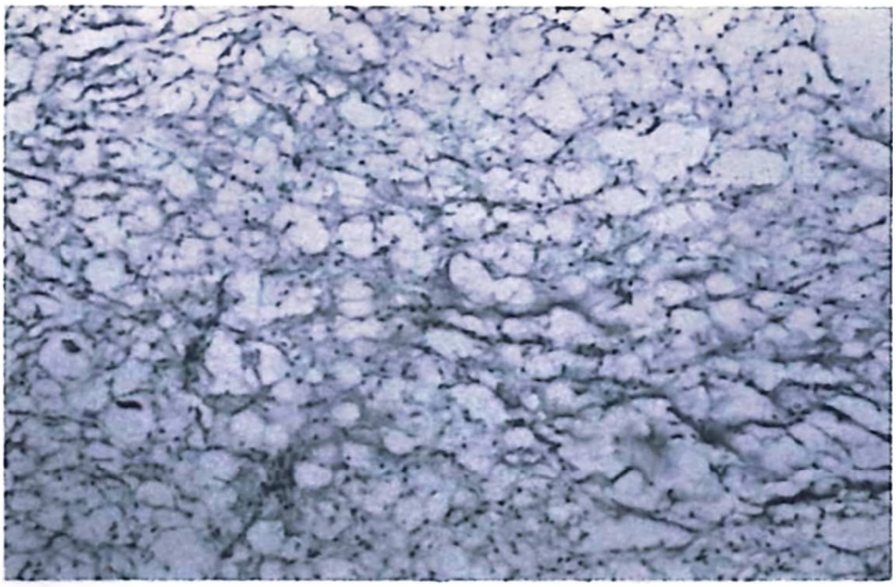

Figure 2

Loose mixoid stroma and lipoblasts (HE x 75).

The postoperative course was uneventful, and follow-up after six months showed no evidence of recurrence.

Discussion

Lipoblastoma is a benign tumor of fetal white fat occurring almost exclusively during the years of infancy and early childhood[2,3]. It has two forms: lipoblastoma, the circumscribed form, and lipoblastomatosis, the diffuse form[4]. It locates on the extremities in 70% of cases. The other predilection sites are axilla, neck, chest wall and paravertebral tissue that contains the primitive adipose tissue in the newborn[3,5]. Among 65 reported cases, there are only two retroperitoneal locations[2,3,5-7].

The displacement of the kidney and ureter without any intrinsic involvement, the fat density, and the solid nature of it revealed on ultrasonography induced us to consider it as of lipomatous origin, and our preoperative diagnosis was lipoma, since the roentgenologic signs were in accord with those of lipoma, which is another rare retroperitoneal tumor of childhood; approximately 20 cases of this have been described in world medical literature[8,9]. Since both the lipoma and the lipoblastoma have the same roentgenologic manifestations, a retroperitoneal fat density mass displacing the kidney and ureter during early childhood should suggest not only lipoma but also lipoblastoma.

The recurrences are rare and unique for diffuse forms, therefore a local excision was a sufficient procedure in our case[4].

Summary

The case of a retroperitoneally located lipoblastoma, a rare occurrence, is presented. It was found by chance in a three-year-old girl suffering from diarrhea due to giardiasis. IVP revealed the displacement of the left kidney and the ureter secondary to a fat dense mass, and ultrasonography showed its solid nature. Since lipoma and lipoblastoma share similar manifestations, both these conditions should be considered when these signs present in early childhood.

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