Case Report

Adult Mesoblastic Nephroma
A Case With Fatal Recurrence

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INTRODUCTION

Congenital mesoblastic nephroma is the most common tumor of the kidney in infants, with a mean age at diagnosis of 3.5 months, but it has been rarely reported in adults.[1-3] Treatment outcome is the usually excellent only with radical surgery.[4] We report this very rare tumor in an adult that presented with a huge abdominal mass.

CASE REPORT

The patient was a 22-year-old man admitted to the gastroenterology department due to abdominal pain, anorexia, and early satiety. On physical examination, a huge abdominal mass was easily palpated. On ultrasonography, a large mass in the right kidney was detected. Abdominopelvic computed tomography with intravenous and oral contrast media showed the mass originated from the right kidney with the largest superoinferior diameter of 25 cm from the liver to the pelvic brim (Figure 1).

The patient underwent right radical nephrectomy. A large thoraco-abdominal incision was made. After opening the layers, a large mass occupying half of the abdomen in the right side was seen. The mass adhesions were released and radical nephrectomy was performed. The tumor weighed 5400 g.

Pathologic examination was in favor of mesoblastic nephroma, a cellular variant consisting of epithelial and stromal components, both with high stromal cellularity (Figure 2). Due to the benign nature of the tumor, the patient

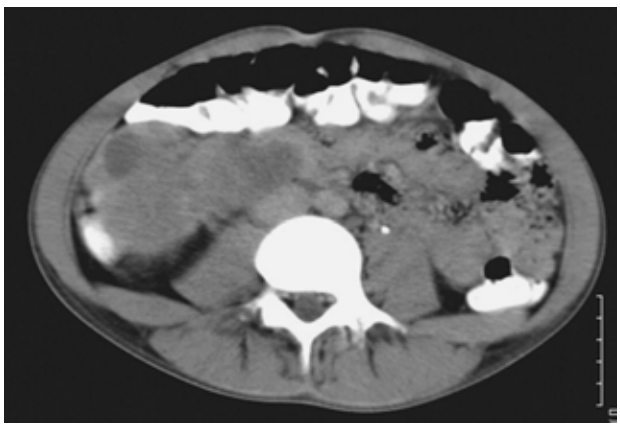

Figure 1. Extension of the tumor to the pelvic cavity was demonstrated by computed tomography.

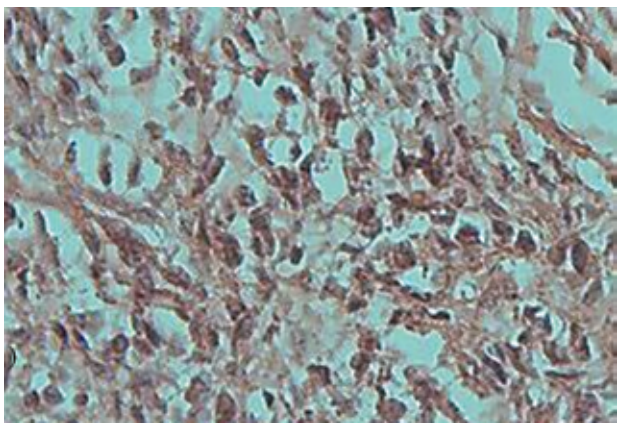

Figure 2. Mesoblastic nephroma with interlacing sheets of connective tissue cells (hematoxylin-eosin, × 100).

did not receive chemotherapy. However, the tumor recurred in the nephrectomy site 2 years after the operation, and in this stage, the patient refused chemoradiotherapy and died 1 year after recurrence.

DISCUSSION

Mesoblastic nephroma is a distinctive tumor that is seen mostly in early infancy in 2 feature of classic and cellular (atypical) variants. There are 3 histologic subtypes of classic, cellular, and mixed. The tumor occurs more commonly in boys and is usually unilateral.[4] Mesoblastic nephroma rarely occurs in adulthood, and in this age group, it still is poorly characterized. To our knowledge, this is the first reported case of adult mesoblastic nephroma from Iran. It is also a rare entity in the world literature; by 2007, a total of 38 cases of adult mesoblastic nephroma have been reported.[3]

The collective data obtained from 22 cases by Truong and colleagues showed that the patients were predominantly women, aged ranging from 19 to 78 years, who were asymptomatic or had nonspecific signs and symptoms referable to a renal mass.[1] The tumors were 2 cm to 24 cm, well circumscribed, and partially encapsulated. They displayed a solid or cystic cut surface, with a wide range of cytological differentiation. The stomal cells were composed of fibroblasts, myofibroblasts, and smooth muscle cells in various combinations.

Adult mesoblastic nephroma displays a distinctive morphologic spectrum that parallels that of its pediatric congener. It probably is a benign tumor that can be treated successfully by complete excision. The collecting duct differentiation expressed by most tubules and cysts of adult mesoblastic nephroma implies ureteral bud which is the exclusive embryologic origin of collecting duct, as an important element in the histogenesis of this rare but fascinating type of tumor. The presence of epithelial elements with tubular conformation surrounded by a spindle-cell component is greatly useful to perform the differential diagnosis between this entity and others of greater clinical significance.[2]

Complete excision is curative for most patients with mesoblastic nephroma. Local recurrence and metastasis can occur, particularly with the cellular variant of the tumor. Neither chemotherapy, nor radiation therapy is routinely recommended.[1]

CONFLICT OF INTEREST

None declared.

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