

# A MYOFIBROBLASTIC TUMOR LOCATED IN MESENTERIUM

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## ABSTRACT

Inflammatory myofibroblastic tumor is a rare nonneoplastic disease. Since these tumors may resemble sarcoma-like clinic and radiologic findings; the diagnosis, treatment and follow-up keep its importance. Lung, liver, retroperitoneum and mesenterium are the sites usually involved. In this

report we present a case with abdominal discomfort, fever and weight loss complaints and was diagnosed as inflamatuar myofibroblastic tumor is reported.

**Key Words:** Childhood, inflamatuar myofibroblastic tumor. *Nobel Med 2011; 7(2): 101-102*

## MESENTERİUMDA YERLEŞMİŞ MİYOFİBROBLASTİK TÜMÖR

### ÖZET

İnflamatuar miyofibroblastik tümör neoplastik olmayan nadir görülen bir hastalıktır. Bu tümörlerin klinik ve radyolojik bulguları sarkoma benzemektedir; tanı, tedavi ve takip önemi unutulmamalıdır. Akciğer, ka-

raciğer, retroperiton ve mezenter genellikle tutulmaktadır.

Bu makalede karn ağrısı, ateş ve kilo kaybı şikayetleri ile polikliniğimize başvuran ve inflamatuar miyofibroblastik tümör tanısı konulan olguyu takdim ettik.

**Anahtar Kelimeler:** Çocukluk, inflamatuar miyofibroblastik tümör. *Nobel Med 2011; 7(2): 101-102*

## INTRODUCTION

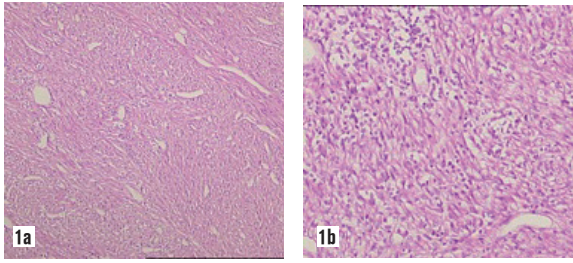
Inflammatory myofibroblastic tumor is rarely seen in childhood and accepted as a nonneoplastic reactive situation.<sup>1,2</sup> However these tumors can mimic the clinical and radiological findings of sarcoma.<sup>2</sup> The tumor is found in lung, retroperiton, mesenterium, liver and spleen in most cases though can be seen in small bowel, pancreas, stomach and urinary bladder as well.<sup>1,3,4</sup> Patients may complain of abdominal discomfort, weight loss and palpable mass in accordance with the site involved.<sup>7</sup> We report here a case who presented to our outpatient clinic with complaints of fever, abdominal pain and weight loss and was diagnosed as inflamatuar myofibroblastic tumor by the pathology after finding a mass in the abdomen and taking a sample from it.

outpatient clinic with abdominal discomfort and distension, fever, fatigue and weight loss complaints which had started two months earlier. The abdominal pain was continuous, localised mainly in the left upper abdominal site and getting worse postprandially. The fever was continuous and higher during night. He had lost five kilograms during the last two months period. The medical history and family history were unrevealing. In the physical examination the body temperature was 38.8°C, respiratory rate was 18 bpm, hearth beat was 112/min, blood pressure was 90/60mmHg, the body weight and height were within 3% percentils. He was cashectic, his abdomen was distended and a mass of 4x4cm was palpable at the level of umblicus. Other findings were normal.

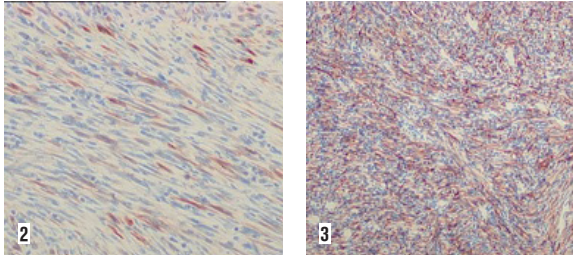
The laboratory findings were as follows: Hb:6.7 g/dl; WBC:12.700/mm<sup>3</sup>, PLT:882.000/mm<sup>3</sup>. Other biochemical findings were within normal ranges. Abdominopelvic ultrasonography was performed and revealed a heterogen/hipoechoic solid mass→

## CASE REPORT

An 11-year old male patient was presented to our



**Figure 1a-b.** Slightly pleomorphic spindle cells showing fascicular and storiform pattern accompanied by dense lymphocyte and plasma cell infiltration. Hematoxylin&Eosin stain. A: x40, B: x100 magnification.



**Figure 2.** Immunohistochemistry for muscle specific actin (MSA) reveals diffuse and strong staining in the spindle cells. Streptavidin-biotin method; AEC was used chromogen, x100 magnification **Figure 3.** Immunohistochemistry for smooth muscle actin (SMA) shows diffuse and strong staining in the spindle cells. Streptavidin-biotin method; AEC was used chromogen, x40 magnification

of 89x48x80 mm, located in the ventral abdomen wall in the level of umbilicus and spreads to pelvis. The mass was thought to be malign tumoral pathology /sarcoma radiologically. The abdominal computerised tomography scan showed a smooth, well circumscribed, solid mass of 6x8x8 cm which has hipodens areas inside (necrosis?) and is located near the anterior abdominal wall. Cranial and thorax computerised tomography scan showed no metastasis.

The chest x-ray and IVP were found out to be normal. With these findings the patient underwent a surgical operation. Resection of the mass, colon resection and end to end anastomosis and total omentectomy were performed. Pathology of the mass revealed

inflammatory myofibroblastic tumor. Follow up for two years period after the operation showed neither relaps nor metastasis.

## DISCUSSION

Inflammatory myofibroblastic tumor has been known since 1937. It is a benign tumor which is rarely seen. Local invasion, relaps, metastasis or malign transformation are rarely seen. There are some factors blamed for the etiology like infection, trauma, radiation although the exact is not known.<sup>1,5</sup> Some hematological and radiologic findings can give clues. Thrombocytosis which we found in our case can be seen in inflammatory myofibroblastic tumors.<sup>2</sup> The definite diagnosis is made histopathologically. The tumor consists of, mild cellular pleomorphism and compact fusiform cells mitosis, polymorphic inflammation which composes plasma cells; and myxoid collagenous stroma.<sup>1,4,6</sup> (Figure 1-3)

One type of inflammatory myofibroblastic proliferations is inflammatory fibrosarcoma. The tumor is locally invasive. It localises in the mesenterium of children and young adults.<sup>9</sup> In our case the mass was not found to have properties of fibrosarcoma.

Therapy is held mainly with local excision. Total surgical excision and close follow up are needed.<sup>3,4,7,8</sup> Early diagnoses and total excision are important for the prognosis.<sup>7</sup> Recurrence, distant metastasis and acquired chromosomal abnormalities were reported.<sup>1,2,4</sup> Lots of patients benefit from surgical resection as it was seen in our patient before relaps develops.<sup>7</sup> We want to underline that the patients with abdominal discomfort, fever and weight loss complaints should be examined carefully and if mass is found the inflammatory myofibroblastic tumor which is seen rarely in childhood has to be kept in mind.

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## REFERENCES

1. Donner et al. Comparison of DNA ploidy, histologic, and immunohistochemical findings with outcome in inflammatory myofibroblastic tumors. *Mod Pathol* 1999; 12: 279-86.
2. Bonnet JP, Basset T, Dijoux D. Abdominal inflammatory myofibroblastic tumors in children: report of an appendiceal case and review of the literature. *J Pediatr Surg* 1996; 31: 1311-1314.
3. Senders MB, West KW, Gingalewski C, et al. Inflammatory pseudotumor of alimentary tract: clinical and surgical experience. *J Pediatr Surg* 2001; 36: 169-173.
4. Cheryl M, Coffin MD, Peter A, et al. Extra pulmonary inflammatory myofibroblastic tumor: a clinical and pathological survey. *Seminars in Diagnostic Pathology* 1998; 15: 85-101.
5. Esteveao-Costa J, Correia-Pinto J, Rodrigues FC, et al. Gastric inflammatory myofibroblastic proliferation in children. *Pediatr Surg Int* 1998; 13: 95-99.
6. Cheryl M, Coffin MD, Louis P, et al. Inflammatory myofibroblastic tumor, inflammatory fibrosarcoma and related lesions: an historical review with differential diagnostic considerations. *Seminars in Diagnostic Pathology* 1998; 15: 102-110.
7. Karnak I, Senocak ME, Cifci AQ, et al. Inflammatory myofibroblastic tumor in children: diagnosis and treatment. *J Br Surg* 2001; 36: 908-912.
8. Stringer MD, Ramani P, Yeung CK, et al. Abdominal inflammatory myofibroblastic tumors in children. *J Br Surg* 1992; 79: 1357-1360.
9. Pungpapong S, Geiger XJ, Raimondo M. Inflammatory myofibroblastic tumor presenting as a pancreatic mass: a case report and review of the literature. *JOP* 2004; 5: 360-367.