

Evaluation of Cases with Abdominal Tuberculosis in Children: Ten Years of Experience from a Single Center in Turkey

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ABSTRACT

Objective: Abdominal tuberculosis (ATB) is a very rare type of extrapulmonary tuberculosis that occurs as a result of infection of the gastrointestinal tract, peritoneum, lymph nodes, and solid organs with *Mycobacterium tuberculosis* or *Mycobacterium bovis*. In this study, we aimed to evaluate the clinical, laboratory, radiological, and histopathological features, diagnostic methods, and prognosis of pediatric cases diagnosed with ATB.

Methods: Thirteen patients diagnosed with ATB in our hospital between January 1, 2011, and January 1, 2021, were evaluated retrospectively.

Results: Ten (76.9%) of the patients were females. The mean age was 13.5 years. TST was positive in 9 patients. Three patients had a history of TB contact. The median time between diagnosis and onset of symptoms was 45 (15–150) days. The most common presenting symptom was abdominal pain. Seven of the patients were diagnosed with proven tuberculosis. *M. tuberculosis* grew in cultures of 5 patients. Tuberculosis polymerase chain reaction positivity was detected in the tissue of two of them. C-reactive protein was high in 9 (69.2%), sedimentation was high in 11 (84.6%) patients, albumin value was low in 5 (38.4%), and anemia was present in 10 (76.9%) patients. A single abdominal area was involved in 7 patients, and multiple abdominal areas were involved in 6 patients. The most frequently involved intra-abdominal area was the peritoneum, and the second was the lymph node. Two patients had isolated abdomen. Pulmonary tuberculosis accompanied in 9 (69.2%) patients. Eleven (84.6%) patients underwent laparoscopy. Intra-abdominal abscess complications developed in 1 patient. The mean follow-up period was 23 (18–61) months. None of the patients died.

Conclusion: ATB can be easily overlooked because it is very rare, and its clinical findings are nonspecific. It should be kept in mind in patients with chronic abdominal symptoms. Although tuberculosis is a preventable disease, the positive effects of early diagnosis and treatment on prognosis should not be forgotten.

INTRODUCTION

Estimating the global burden of tuberculosis (TB) in children is difficult due to the lack of a standard case definition, difficulties in making a definitive diagnosis, and the higher prevalence of extrapulmonary tuberculosis (EPTB).^[1] In its 2019 report, the World Health Organization reported that out of an estimated 10 million cases of TB in 2018, approximately 1.1 million (11%) were children under 15 years.^[2] EPTB is more common in children due to the high risk of lymphohematogenous spread, and clinical manifestations depend on the location of the disease. Abdominal tuberculosis (ATB) is the infection of the gastrointestinal tract, peritoneum, lymph nodes, and solid organs with *Mycobacterium tuberculosis* or *Mycobacterium bovis*.^[3] ATB may occur due to reactivation of latent TB, ingestion of TB

bacillus, and lymphohematogenous dissemination during pulmonary TB or miliary TB.^[4] ATB may present with clinical signs of fever, weight loss, abdominal pain or abdominal distension, ascites, hepatomegaly, diarrhea, intestinal obstruction, and abdominal mass. It is quite rare in children; it only occurs in 0.3% of all pediatric TB cases.^[5] Among EPTB cases, it is detected at a rate of 4%–10%.^[6] Bacteriological confirmation can be done in a minority of patients. Therefore, the diagnosis is usually done based on the history, clinical, radiological, and histopathological findings.

In pediatric cases, the diagnosis may be delayed for years. Suspicion of ATB and early diagnosis reduces mortality and morbidity significantly. In this study, we aimed to evaluate the clinical, laboratory, radiological, and histopathological features, diagnostic methods, and prognosis of patients diagnosed with ATB.

MATERIALS AND METHODS

Patients under 18 years who were diagnosed with ATB in the Pediatric Infection Department between January 1, 2011, and January 1, 2021, were included in the study. The files of the patients were reviewed retrospectively. Patient's age, gender, admission complaint and duration, medical history, physical examination findings, laboratory results, TB contact history, Bacille Calmette-Guérin (BCG) vaccination status, tuberculin skin test (TST), bilateral chest radiographs, ultrasonography (USG), computerized tomography (CT) findings, histopathological evaluation results, fasting gastric juice (FGJ) for TB, sputum, abscess, peritoneal fluid, acid-resistant bacillus (ARB) staining in tissue, tuberculosis polymerase chain reaction (TB-PCR), TB culture results, antibiotic susceptibility test in case of growth, method of diagnosis, treatment and duration, complications, surgical procedure, follow-up period, and prognosis were recorded in the follow-up sheets.

ATB was defined as the infection of various organs of the abdominal cavity, such as the intestines, peritoneum, lymph nodes, and visceral organs, alone or in combination with TB bacillus. Cases with ARB positivity, TB-PCR positivity, or *M. tuberculosis* growth in culture were considered as proven, whereas cases with clinical, histopathological, and radiological diagnoses, where the bacteriological presentation of the microorganism was not possible, were evaluated as possible diagnoses.

TST was evaluated 72 h after the intradermal administration of 0.1 mL of the purified protein derivative to the inner surface of the forearm. A value of 15 mm and above in patients with BCG evidence, 10 mm in those without BCG vaccination, and 5 mm and above in immunosuppressed patients with chronic disease were considered "positive."

All patients were started on antituberculosis treatment with isoniazid (INH, 10 mg/kg/day; max: 300 mg), rifampicin (15 mg/kg/day; max: 600 mg), pyrazinamide (30–35 mg/kg/day; max: 2 g), and as the fourth drug ethambutol (15 mg/kg/day; max: 1.5 g) or streptomycin (15 mg/kg/day; max: 1 g). Observed drug side effects were recorded.

Ethical approval of the study was obtained from the local ethics committee (No. 108, Date: February 12, 2021).

SPSS version 23.0 was used for statistical analysis. Categorical measurements were summarized as numbers and percentages, while continuous measurements were summarized as mean, deviation, and minimum–maximum.

RESULTS

Thirteen patients diagnosed with ATB in the pediatric infection department were followed up during the 10-year period. Three (23.1%) of the patients were males, and 10 (76.9%) were females. The mean age was 13.5 (range 2–17) years. Four (30.8%) patients were Syrian citizens. Eleven (84.6%) patients had BCG scars. TST was performed on

all the patients, and 9 (69.2%) were positive. Only 1 patient was found to be positive on the IGR test. Three (23.1%) patients had a history of TB contact. Admission symptoms were abdominal pain in 13 (100%), fever in 6 (46.2%), nausea in 6 (46.2%), abdominal distension in 5 (38.5%), diarrhea in 2 (15.4%), and constipation in 1 (7.7%) patient. The median time between diagnosis and onset of symptoms was 45 (15–150) days. The data of the ATB patients are shown in Table 1. C-reactive protein (CRP) was high in 9 (69.2%) patients, and erythrocyte sedimentation rate (ESR) was high in 11 (84.6%) patients. Albumin value was low in 5 (38.5%) patients. Anemia was present in 10 (76.9%) patients. Anti-HIV tests of all patients were negative. None of them had an underlying disease.

Of the patients, 7 (53.8%) were diagnosed with proven ATB, and 6 (46.2%) were diagnosed with probable ATB. FGJ was taken from 12 patients. Three patients were ARB positive, and *M. tuberculosis* grew in their cultures (2 FGJ and 1 tissue). *M. tuberculosis* grew only in the cultures of the other 2 patients (1 FGJ and 1 abscess). TB-PCR positivity was detected in the peritoneal tissue of 2 patients. No drug resistance was detected in any patient.

Biopsy was taken from the peritoneum or lymph node of all patients. In the biopsy results of the patients, 6 (46.2%) granulomatous inflammation (GI), 4 (30.8%) calcified granulomatous inflammation (CGI), and 3 (23.1%) suppurative granulomatous inflammation were detected.

Of the patients, 7 (53.8%) patients had single, and 6 (46.2%) patients had multiabdominal involvement. The most frequently involved intra-abdominal areas were peritoneal in 9 (69.2%) and lymph nodes in 8 (61.5%) patients. Intra-abdominal involvement areas are shown in Table 2.

Isolated abdomen was diagnosed in 2 patients, and TB was diagnosed in 11 patients with nonabdominal tissue or organ involvement. Of the total patients, 9 (69.2%) had pulmonary, 4 (30.8%) lymphadenitis, 3 (23.1%) pleural, and 1 (7.7%) patient had pulmonary + pleural + skeletal TB. Two-way chest radiographs were taken in all patients. Ten (76.9%) patients with suspicious appearance were evaluated with lung CT. Their abdominal CT and USG findings were similar. The lung and abdominal CT findings of the patients are shown in Table 3.

All patients were started on quartile antituberculosis treatment. It was determined that hepatitis developed in 3 patients as a treatment complication. When 1 patient developed hepatitis for the second time, INH was discontinued, and maintenance treatment was continued with rifampicin and ethambutol. Due to the narrowing of the visual field in 2 patients receiving ethambutol, the ethambutol was discontinued, and streptomycin was started. The follow-up eye examination was normal. The mean duration of treatment of the patients was 10.15 ± 1.95 (range 6–12) months.

Eleven (84.6%) patients underwent laparoscopy. Two (15.4%) patients underwent laparotomy. A complication of intra-abdominal abscess developed in 1 patient, and a

Table I. Data of abdominal tuberculosis patients

Case	Age (months) sex/year	Symptoms and signs	Diagnosis	Abdominal/site location (site)	Radiological findings	Other site	BCG	Sedimentation	TST	TB-PCR or ARB	TB culture	Histopathology	Treatment	Follow-up time (months)
1*	186/F/2012	Abdominal pain, nausea, anorexia, diarrhea	Possible	Peritoneum	Acit, peritoneal thickening	Pulmonary, pleural	-	40	Positive	-	-	GI	Quadruple anti-TB/laparoscopy	26
2	68/F/2019	Abdominal pain, swelling in the abdomen, fever	Proven	Peritoneum, lymph node	Peritoneal thickening, LAP	Pulmonar, lymph node	+	120	-	FG/ARB+	FG <i>M. tuberculosis</i>	CGI	Quadruple anti-TB/laparoscopy	18
3	89/M/2020	Abdominal pain, nausea, swelling in the abdomen, fever	Proven	Peritoneum, lymph node, intestine, spleen	Acit, peritoneal thickening, LAP, intestinal thickening, spleen nodule	Pulmonary	+	140	-	FG/ARB +, peritoneal fluid ARB+	FG <i>M. tuberculosis</i>	Suppurative GI	Quadruple anti-TB/laparotomy	12
4	204/F/2018	Abdominal pain, swelling in the neck	Proven	Lymph node	LAP	Lymph node	+	29	IGRA positive	Tissue TB-PCR+	-	GI	Quadruple anti-TB/laparotomy	20
5*	24/F/2016	Abdominal pain, fever, constipation	Proven	Peritoneum, lymph node, intestine	Peritoneal and intestinal thickening	-	+	38	Positive	Tissue TB-PCR+	-	Suppurative GI	Quadruple anti-TB/laparoscopy	18
6	101/F/2016	Abdominal pain, fever, weight loss, swelling in the joints	Proven	Peritoneum, spleen	Peritoneal thickening, spleen nodule	Pulmonar, pleural, skeleton	+	100	Positive	-	Bone abscess <i>M. tuberculosis</i>	GI	Quadruple anti-TB/laparoscopy	Unfollowed
7	210/F/2017	Abdominal pain, swelling in the abdomen, fever, nausea, diarrhea	Possible	Peritoneum, lymph node	Peritoneal thickening, LAP	Pulmonary	+	37	Positive	-	-	CGI	Quadruple anti-TB/laparoscopy	46
8	186/F/2017	Abdominal pain, fever, diarrhea	Possible	Lymph node	LAP	-	+	12	-	-	-	CGI	Quadruple anti-TB/laparoscopy	42
9	74/F/2011	Abdominal pain, fever, swelling in the neck	Proven	Lymph node	LAP	Pulmonary, lymph node	+	116	Positive	Tissue ARB+	Tissue <i>M. tuberculosis</i>	Suppurative GI	Quadruple anti-TB/laparoscopy	Unfollowed
10	62/M/2015	Abdominal pain, swelling in the neck	Proven	Lymph node	LAP	Pulmonary, lymph node	+	40	Positive	-	FJS <i>M. tuberculosis</i>	GI	Quadruple anti-TB/laparoscopy	61
11	171/F/2015	Abdominal pain, nausea, swelling in the abdomen	Possible	Peritoneum	Acit, peritoneal thickening	Pleural	-	55	Positive	-	-	CGI	Quadruple anti-TB/laparoscopy	56
12	164/F/2019	Abdominal pain, nausea	Possible	Peritoneum, lymph node	Acit, peritoneal thickening, LAP	Pulmonary	-	40	Positive	-	-	GI	Quadruple anti-TB/laparoscopy	20
13*	163/M/2016	Abdominal pain, nausea, swelling in the abdomen	Possible	Peritoneum	Acit, peritoneal thickening	Pulmonary	+	12	Positive	-	-	GI	Quadruple anti-TB/laparoscopy	48

Tuberculosis (TB) contact: TST: Tuberculin skin test; ARB: Acid-resistant bacillus; TB: Tuberculosis; F: Female; M: Male; BCG: Bacille Calmette-Guérin; GI: Granulomatous inflammation; CGI: Caseified granulomatous inflammation; LAP: Lymphadenopathy; FG: Fasting gastric juice; IGRA: Interferon gamma releasing assay.

second laparotomy was performed (case 3). The mean follow-up period was 23 (18–61) months. Eleven patients recovered without sequelae. Two patients did not come for follow-up after treatment interruption. None of the patients died.

DISCUSSION

TB continues to be an important health problem in Turkey as well as all over the world. TB in childhood is a preventable and treatable disease, but when it is not suspected or the diagnosis is delayed, it results in mortality and morbidity. It is diagnosed rather late in children due to diagnostic difficulties and chronic non-specific symptoms. Usta et al.^[7] averaged 2.5±1 month (1–4 months) between the onset of symptoms and diagnosis. Lal et al.^[8] averaged 4 (0.5–36 months) months, and Kılıç et al.^[9] 109 days (10 days–3 years). In our study, this period was an average of 45 (15–150 days) days. It has come in sight that clinicians should keep ATB in mind more frequently in patients with chronic abdominal symptoms.

Different results have been reported in the literature regarding age and gender in ATB. It has been reported 50%–76%^[7,8,10,11] in females and 54.3%^[9] in males. In our study, it was more common in females with a rate of 76.9%. Although it is generally seen in the adult age group, the mean age of incidence in children has been reported as 9.8 years,^[11] 10 years,^[8] 11.3 years,^[10] and 13.6±2.8 years.^[7] In our study, the mean age was 13.5 years. In general, they were diagnosed less frequently in infants, predominantly in the school-age group.

The symptoms of ATB vary according to the place of involvement. It may present with fever, weight loss, abdominal pain, and/or bloating, ascites, hepatomegaly, diarrhea, intestinal obstruction, and abdominal mass.^[12] Wong et al.^[10] reported fever, weight loss, vomiting, diarrhea, and anorexia as the most common symptoms. In a study, they reported abdominal pain in all patients, fever in half, and abdominal distension in a quarter.^[7] In another study, abdominal pain, fever, and weight loss were reported as the most common symptoms in a patient.^[8] Kılıç et al.^[9] detected the symptoms of abdominal pain, abdominal distention,

Table 2. Intra-abdominal involved site

Site	n (%)
Lymph node	4 (30.7)
Peritoneum	3 (23)
Peritoneum, lymph node	3 (23)
Peritoneum, lymph node, intestinal, spleen	1 (7.6)
Peritoneum, intestinal	1 (7.6)
Peritoneum, spleen	1 (7.6)
Total	13

Table 3. Lung and abdominal CT findings of the patients

Lung CT findings	n (%)	Abdominal CT findings	n (%)
Consolidation	4 (30.8)	Peritoneal thickening	9 (69.2)
Pericardial effusion	3 (23.1)	LAP	8 (61.5)
Pleural effusion	3 (23.1)	Acid	5 (38.5)
Mediastinal LAP ^a	3 (23.1)	Intestinal thickening	2 (15.4)
Atelectasis	2 (15.4)	Spleen nodule	2 (15.4)
Cavitation	1 (7.7)	HSM	1 (7.7)

^aCalcified LAP. LAP: Lymphadenopathy; HSM: Hepatosplenomegaly; CT: Computed tomography.

weight loss, and fever in order of frequency. In our study, in accordance with the literature, we detected abdominal pain, followed by fever, abdominal swelling, and weight loss in all patients. Symptoms are nonspecific, and ATB should be included in the differential diagnosis in patients with abdominal pain/distention, fever, and weight loss.

ATB can mimic many diseases such as Crohn's disease, AIDS, lymphoproliferative disorder, abdominal lymphoma, and malignancy in abdominal organs.^[13,14] Tinsa et al.^[11] reported that 1 patient presented with acute abdomen and 2 patients presented with a mass mimicking lymphoma. Wong et al.^[10] reported that protein-losing enteropathy secondary to inflammatory bowel disease, infective gastroenteritis, and hematological malignancy were initially considered in 3 patients. ATB may rarely occur in an emergency. One of our cases underwent laparotomy due to acute abdomen before applying to us. A mass/lymphadenopathy (LAP) was detected in the ileocecal region, and Burkitt lymphoma was initially considered, but TB was diagnosed histopathologically (case 3). Kılıç et al.^[9] reported that 6 patients (3 bowel perforations, 2 perforated appendicitis, and 1 invagination) presented with acute abdomen in their study consisting of 35 patients. It should not be forgotten that it will present with acute abdomen, which can mimic many diseases.

ATB can involve all intra-abdominal tissues and organs. The most common involvement in adults is gastrointestinal tract, while in children, it is lymph node and peritoneum.

^[11] In a study, it was reported that single area involvement was 45%, the most common was lymph node, followed by the gastrointestinal tract, peritoneum, and solid organs.^[8] In another study, more than half of the patients reported single area involvement with most frequently peritoneum, followed, respectively, by intestinal and lymph node.^[15] Peritoneal involvement, followed by intestinal involvement, has been reported most frequently in case series in the literature.^[9] In our study, in line with the literature, more than half of the patients were found to be involved in a single area and most frequently in the peritoneum, followed by the lymph node and intestinal involvement. It should be kept in mind that although rare, involvement of the spleen, liver, and other solid organs, esophagus, stomach, and perianal area may occur.

ATB can be seen together with TB in other areas. In a case series in the literature, it was reported that 33% of other TB was accompanied by TB, 25% of which were pulmonary TB.^[8] In another case series, they reported that in 21%, ATB is also accompanied by extra-abdominal areas, and these are 15% pulmonary, 2.6% axillary LAP, and 2.6% intracranial tuberculoma.^[15] In a study, it was reported that all patients had other area involvements (80% pulmonary, 50% pleural, 10% central nervous system, 10% pericardium, and 10% lymph node TB).^[16] In our study, 84.6% had other area involvement, of which 69% was pulmonary, 30.8% lymph node, 23% pleural, and 7.6% skeletal TB. Concomitant extra-abdominal area involvements differ from study to study. Due to the high risk of dissemination in children, TB should be kept in mind when symptoms and signs involving other systems, besides abdominal symptoms, are present. In the presence of ATB, especially in pediatric patients, other areas, primarily the pulmonary focus, should be checked.

TST indicates exposure to tuberculosis bacillus and is routinely requested in children when TB is suspected. In the literature, 37.5%–61.5% positivity has been reported in pediatric ATB cases.^[8,9,11,17] In our study, TST was 69.2% positive. A negative TST does not indicate that the patient does not have TB, but a positive TST supports the diagnosis of the disease. Considering the reasons that make the test false positive and negative, it has been found that its sensitivity and specificity are around 90%.^[18] The sensitivity of the test is higher in societies with a high prevalence of infection.

ESH and CRP are acute phase reactants reflecting inflammation or disease activity and are supportive in high sedimentation TB disease, but their being normal does not exclude the disease. In line with the literature, acute phase reactants were also high in most of our cases.^[7,9,15,17]

The history of TB exposure in children is one of the most important factors in suspecting and diagnosing. Three of our patients (23%) had a history of TB contact. In the literature, contact was reported with a rate of 31.2%–60%^[8–10,16,18] in pediatric cases. Children become infected through close contact with households or people with TB, including family members or caregivers. For this reason,

pediatric patients who are in contact with adults diagnosed with TB should be screened for TB, and prophylaxis should be given to prevent the disease.

Bacteriological confirmation in ATB can be demonstrated in ~50% of patients.^[19] In the literature, bacteriological confirmation has been reported between 14.2% and 47% in pediatric cases.^[7-9,15] In our study, bacteriological confirmation was shown in 53.8% of patients. The remaining patients were diagnosed as probable based on clinical, contact history, TST, radiological, and histopathological results. As in the literature, patients without a proven diagnosis of TB among our patients were evaluated as probable, and the diagnosis was made by the response to the treatment. There is a need for new diagnostic methods with high sensitivity and specificity, especially in pediatric patients, for the diagnosis of ATB.

When ATB is suspected, direct radiography, CT, or USG is used for diagnosis. In the literature, radiological findings in ATB are similar. In the case series reported in the literature, ascites, mesenteric LAP, mesenteric and omental thickening, thickening of the intestinal wall, enlargement of the liver spleen, and abdominal mass were detected in the abdominal CT.^[9] In another study, they reported LAP, ascites, thickening of the intestinal wall, and omental thickening in CT or USG.^[15] In our study, radiological findings in order of frequency were LAP, thickening of the peritoneum, ascites, thickening of the intestinal wall, hepatosplenomegaly, and nodule in the spleen. The radiological findings are nonspecific, and microbiological or histopathological confirmation should be obtained by percutaneous aspiration or direct biopsy.^[20,21] A histopathological diagnosis can be made by performing a laparoscopy/laparotomy/fine needle biopsy. In our study, 84.6% laparoscopy- and 15.4% laparotomy-guided biopsies were taken from the peritoneum or lymph node. In pathology, GI was detected in all patients. After excluding other causes of GI in patients without evidence of TB, treatment was initiated with the diagnosis of probable TB with supportive findings.

ATB is treated with quadruple antituberculosis drugs, but the duration of treatment is controversial. Treatment durations between 6 months and 18 months^[7,9,11,16,22] have been reported in the literature. In our study, the duration of treatment ranged from 6 to 12 months. It has come to view that there is no definite treatment period, and the duration should be determined on a case-by-case basis. As a side effect of antituberculosis treatment, hepatitis and two ethambutol-induced narrowing of the visual field developed in 3 patients. It was observed that the side effects disappeared with drug regulation. Patients should be followed closely in terms of drug side effects during medical treatment.

In addition to medical treatment of ATB, surgical treatment may be required for patients with complications such as perforation, abscess, fistula, bleeding, and/or obstruction.^[2] In the literature, it has been reported that surgery was performed in 9 of 218 pediatric patients (6 perforation peritonitis and 3 intestinal obstruction).^[8] In one of

our patients, laparotomy was performed for the second time due to the development of an abscess in the fourth week of the treatment.

The prognosis of the disease is generally good with early diagnosis and treatment. In the literature, mortality in children has been reported as 0%–10%.^[7-9,15,16] No patient died in our study. Ten patients recovered without sequelae, 2 patients were not followed up, and 1 patient was still under treatment.

CONCLUSION

In conclusion, TB in children still remains an important public health problem all over the world. ATB can be easily missed because it is very rare, and clinical findings are nonspecific. The chronic gastrointestinal tract may present with nonspecific symptoms as well as acute abdomen. It is not always possible to make a proven diagnosis of ATB, and it is usually necessary to start treatment by suspecting TB contact history, clinical features, radiological, and histopathological findings. Children who are in close contact with adult patients diagnosed with TB should be screened, and prophylaxis should be started.

Ethics Committee Approval

This study approved by the Çukurova University Faculty of Medicine Clinical Research Ethics Committee (Date: 12.02.2021, Decision No: 108).

Informed Consent

Retrospective study.

Peer-review

Internally peer-reviewed.

Authorship Contributions

Concept: Ü.Ç., D.A.; Design: Ü.Ç., D.A.; Supervision: Ü.Ç., Ö.Ö.G.; Fundings: Ü.Ç.; Data: Ü.Ç.; Analysis: Ü.Ç., D.A.; Literature search: Ü.Ç., Ö.Ö.G.; Writing: Ü.Ç., Ö.Ö.G.; Critical revision: Ü.Ç., D.A., Ö.Ö.G

Conflict of Interest

None declared.

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Çocuklarda Abdominal Tüberkülozlu Olguların Değerlendirilmesi: Türkiyede Tek Merkezden 10 Yıllık Deneyim

Amaç: Abdominal tüberküloz gastrointestinal sistem, periton, lenf nodları, ve solid organların *Mycobacterium tuberculosis* ya da *Mycobacterium bovis* ile infekte olması sonucu ortaya çıkan oldukça nadir görülen bir ekstrapulmoner tüberküloz çeşididir. Bu çalışmada, abdominal tüberküloz tanısı olan çocuk olguların klinik, laboratuvar, radyolojik, histopatolojik özelliklerinin değerlendirilmesi, tanı yöntemleri ve prognozunu belirlemeyi amaçladık.

Gereç ve Yöntem: Çalışmaya hastanemizde 01.01.2011–01.01.2021 tarihleri arasında abdominal tüberküloz tanısı alan 13 hasta retrospektif olarak değerlendirildi.

Bulgular: Hastaların 10'u (%76.9) kızdı. Ortalama yaş 13,5 yıldır. tüberkulin deri testi 9'unda pozitifdi. Üç hastada TB temas öyküsü vardı. Tanı konma ile semptomların başlangıcı arasındaki süre ortanca 45 (15–150) gündü. En sık başvuru semptomu karın ağrısıydı. Hastaların 7'si kanıtlanmış tüberküloz tanısı aldı. Beş hastanın kültürlerinde *M. tuberculosis* üredi. İkisinde dokuda TB-PCR pozitifliği saptandı. C-reaktif protein 9 (%69.2), eritrosit sedimentasyon hızı 11 (%84.6) hastada yüksekti, 5 (%38.4) hastada albümin değeri düşük, 10 (%76.9) hastanın anemisi mevcuttu Hastaların 7'sinde tek abdominal alan, 6'sında multipl abdominal alan tutulmuştu. En sık tutulan intraabdominal alan periton, ikincisi lenf noduydu. İki hastada izole abdomen tüberkülozda vardı. Dokuzunda (%69.2) pulmoner tüberküloz eşlik ediyordu. Onbir (%84.6) hastaya laparoskopisi uygulandı. Bir hastada batın içi abse komplikasyonu gelişti. Takip süresi ortalama 23 (18–61) aydı. Ölen hasta olmadı.

Sonuç: Abdominal tüberküloz oldukça nadir olması ve klinik bulguların nonspesifik olması nedeniyle kolayca atlanabilmektedir. Kronik abdominal semptomu olanlarda akıldan tutulmalıdır. Tüberküloz önlenemeyen bir hastalık olmak ile birlikte erken tanı ve tedavinin prognoz üzerindeki olumlu etkisi unutulmamalıdır.

Anahtar Sözcükler: Abdominal tüberküloz; çocuk; ekstrapulmoner tüberküloz; prognoz.