Actinomycosis is an uncommon, indolent, invasive infection caused by Actinomyces species, opportunistic Gram positive organisms that normally colonize the oropharynx. Abdominal and thoracic districts are among the most common sites of involvement. Risk factors include dental caries and trauma. We describe a case of thoraco-abdominal actinomycosis in an 8-years-old boy who was admitted to our hospital for left upper abdominal pain after a banal trauma, abdominal ultrasound was negative. Some days after he returned for shortness of breathing without fever and re-presentation of abdominal pain.

His physical examination was positive for left side abdominal and thoracic tenderness and several dental caries. The history was negative for severe infections and immunodeficiency. Abdominal ultrasound and computer tomography (CT), showed a pulmonary consolidation with pleuric effusion and vascularized perisplenic lesion. Routinary analysis showed leucocytosis with neutrophilia, an increased in C-reactive protein and mild anemia while lactate dehydrogenase (LDH), liver, renal function as well as cancer markers on the ipotesis of neoplastic lesion were normal. Ultrasound-guided biopsy of the lesion showed granulation tissue with abscesses. The culture came back to be Actinomycoses. Antibiotic therapy was performed with a clinical improvement. Follow up CT scan showed a decrease of the thoraco-abdominal lesion.

Actinomycosis has been called “the most misdiagnosed disease” and it is rare in children and adolescent. The symptoms and routine blood tests are not specifics. The definite diagnosis of actinomycosis relies on Gram stain microscopy and culture. Furthermore radiological investigations are essential for diagnosis as well as for the follow up.