

Pulmonary Tuberculosis in a 9 Years Old Girl Presented with Globus Sensation: Case Report

Dokuz Yaşında Globus Histerikus ile Başvuran Pulmoner Tüberküloz Olgusu

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ABSTRACT Globus sensation is a somatoform disease, defined as an intermittent feeling of a lump or foreign body in the throat that occurs between meals, and is not associated with gastroesophageal reflux or esophageal motility disorders. Although common in adults, globus sensation is rare in children. A 9 years old girl was referred to our hospital because of sore throat, cough, vomiting, anorexia, weight loss. Hematologic and gastroenterologic pathology were excluded. Anxiety was notable. She witnessed the killing of his cousin. Diazepam was started and dramatic response was taken in one day. Heal without treatment, lack of other accompanying pathologies, rapid response to diazepam was thought to be responsible for globus. Her tuberculin skin test was positive and thorax computed tomography that performed for the reasons of anorexia of weight loss and chronic cough revealed tuberculoma. Globus is a rare condition in children because of describing and diagnosis difficulties. Organic pathologies should be excluded.

Keywords: Child; conversion disorder; tuberculosis

ÖZET Somatoform bir hastalık olan globus histerikus, özofagus motilite bozuklukları ve gastro-özofageal reflü ile ilişkili olmayan, yemekler arasında, boğazda yabancı cisim hissidir. Yetişkinlerde daha sık olmakla birlikte çocuklarda nadirdir. Dokuz yaşında kız hasta boğaz ağrısı, öksürük, kusma, iştahsızlık ve kilo kaybı ile başvurdu. Hematolojik ve gastroözofageal patolojiler dışlandı. Anksiyetesi olan hastanın kuzeninin öldürülüşünü gördüğü öğrenildi. Tedavi yapılmadan diazepamla bir günde dramatik yanıt veren olgu globus olarak değerlendirildi. Öksürük ve kilo kaybı olan hastanın, tüberkülin deri testi pozitif ve kilo kaybı ve anoreksia nedenine yönelik yapılan torakal tomografisinde tüberküloz saptandı. Globus çocuklarda nadir görülen ve altında yatan patolojiler açısından tetkik edilmesi gereken bir durumdur.

Anahtar Kelimeler: Çocuk; konversiyon bozuklukları; tüberküloz

Globus hystericus is an uncommon conversion disorder. It is manifested by the sensation of a mass in throat. The diagnosis demands close consideration of organic causes to rule them out. The etiology of globus hystericus is, by definition, psychiatric but may be predisposed in persons with physiologic abnormalities. The diagnosis of globus sensation is difficult because of the necessity of excluding organic pathologies. Management is nonspecific and certainly includes psychotherapy. Comorbid disorders should also be considered and treated. The prognosis is generally good.^{1,2} Globus sensation is a rare symptom in children. We report here an atypical presentation of pulmonary tuberculosis in a 9 years old girl with this symptom.

CASE REPORT

A nine years old girl admitted our hospital with sore throat, cough, vomiting, anorexia, weight loss. Symptoms had started 1,5 months ago and for five times different empirical antibiotherapy for upper respiratory tract infection had been prescribed by pediatricians. Symptoms had persisted despite antibacterial treatment. Cough had increased. Fever was not specified. There were 1,5 months of weakness and difficulty of swallowing solid and liquid nutrition. In last 5 days cough increased and vomiting added. There were no night sweats in the history. The patient's and family history was unremarkable for malignities, autoimmune diseases and tuberculosis. Physical examination findings were crusted lips and strawberry tongue. There were no pathological findings in other system reviews. Atypical cells were not observed in peripheral blood smear. Complete blood count was normal. C-reactive protein was 3,1 mg/dL. Anti-nuclear antibody (ANA) profile, taken to exclude vasculitis in patient with dysphagia and weight loss, was negative. There was no structural/functional stricture in videofluoroscopic esophageal function and esophagographies with double contrast barium sulphate. Laryngopharyngeal reflux was not detected in the patient. Neck magnetic resonance imaging (MRI) was normal (Figure 1), nasopharyngeal mass was ruled out. Oral intake decreased significantly with follow-up and vomiting continued. Total parenteral nutrition (TPN) was started. In 3 days oral intake increased and TPN was discontinued. The patient was consulted with Pediatric Gastroenterology. Gastroenterologic pathology was not considered. Because of the history of severe psychological family trauma 2 months ago, the patient was consulted with Pediatric Psychiatry. After treatment with oral diazepam, dramatic reduction of cough and dysphagia was observed. Weight gain was seen (2 kg in a week). Also, patient's Tuberculin skin test (TST) was 19 mm (positive), one BCG scar was seen and the chest X ray was normal (Figure 2). When the story was queried in detail, it was learned that grandfather had taken treatment for active tuberculosis 1,5 years ago, so

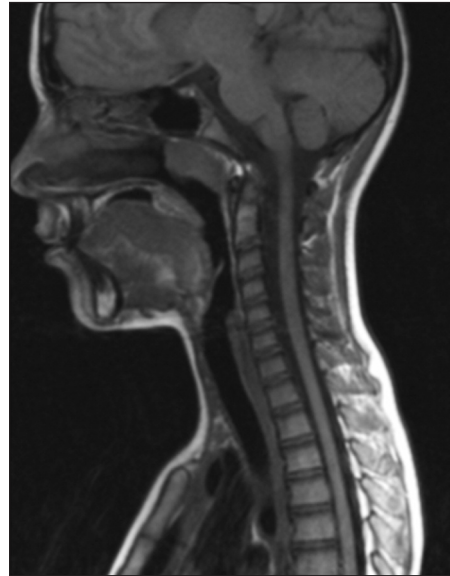


FIGURE 1: Normal neck magnetic resonance imaging.

she had not taken prophylactic chemotherapy. Thoracic computed tomography (CT) scans were obtained. Tuberculoma in the right upper lobe was detected (Figure 3). In early morning gastric aspirates acid resistant bacilli were not found for three days. Antituberculous treatment with three drugs (isoniazid, rifampicin, and pyrazinamide) were started. All family members were screened for tuberculosis. Her grandfather was thought to be the index case and she was referred to tuberculosis dispensary for treatment and follow up. Regular psychotherapy was initiated.

DISCUSSION

Globus sensation has been defined using the following criteria in adults: The persistent or intermittent sensation without pain of a lump or foreign body in the throat, occurrence of the sensation between meals, absence of evidence that gastroesophageal reflux is the cause of symptoms, absence of histopathology-based esophageal motility disorders.³ Globus sensation (which has also been referred to as globus pharyngeus and globus hystericus) usually presents during adolescence or early adulthood, most often reported in young to middle aged women. The disorder may be severe or even life threatening. Its incidence is unknown

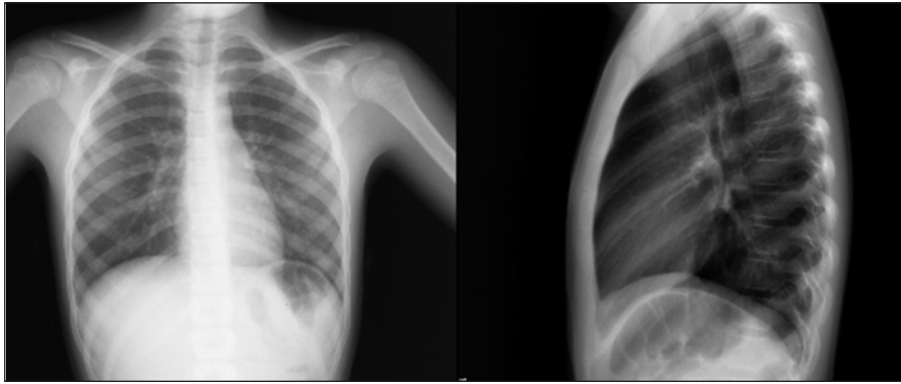


FIGURE 2: Chest X ray was normal.

in adults and children.^{2,4} Pain has also been described. The feeling in the throat (usually in the median or paramedian plane and is more often suprasternal versus at the level of the cricoid) has been described variably as if irritated by a small hair to the size of a billiard ball. Patients usually do not exhibit hoarseness or weight loss as may be observed with cancer. Some patients actually demonstrate weight gain, a phenomenon possibly explained by increased food intake in an attempt to alleviate symptoms.² In our patient, weight loss, cough, fatigue was significant. It was associated with lack of oral intake and pulmonary tuberculosis. There was no malignancy.

The etiology of globus is unknown but it has been associated with multiple disorders in adults: abnormal esophageal body or lower esophageal sphincter motility, achalasia, after uvulopalatoplasty, carcinoma of the base of the tongue, cervical lymph nodes, esophageal inlet patch, gastroesophageal reflux disease (GERD), gastroduodenal lesions, goiter, hiatal hernia, upper esophageal sphincter abnormalities (UES), hyperplastic tonsils, paraesophageal masses, postcricoid webs. Although the data are limited, the areas that have received the greatest amount of attention have been GERD of the UES abnormalities, psychologic and psychiatric disorders, and stress.^{5,6} Acute stress has been hypothesized to influence the development of globus, possibly by affecting UES pressure.⁶ Neuroticism, introversion, anxiety, and depression is more often in globus patients. Furthermore, despite these associations, not all

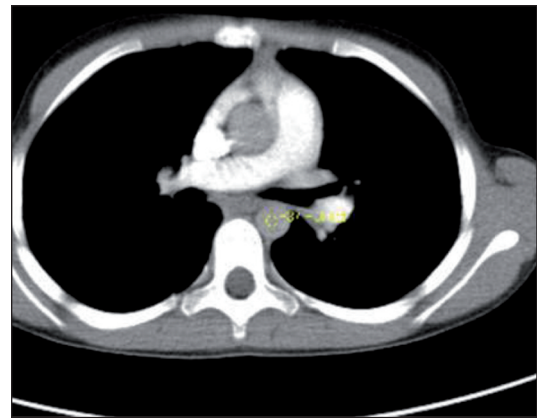


FIGURE 3: Tuberculoma in the right upper lobe on the patient's thoracic computerized tomography.

patients with globus have psychologic or psychiatric abnormalities.^{6,7} In the family history we learned that she witnessed the killing of his cousin. All patients should undergo a careful history on identifying signs or symptoms of an esophageal motility disorder, especially achalasia. A complete physical and otolaryngological examination should be performed. In addition, we usually perform a barium swallow with a solid bolus to exclude a mechanical problem and to look for an obvious, underlying motility disorder. On the other hand, appropriate endoscopic or barium studies should be obtained in patients in whom globus is new, in those in whom it has changed, or those with alarm symptoms (such as weight loss, anemia, dysphagia, or odynophagia.) In patients with continued troubling symptoms, additional work-up may include videofluoroscopic or mano-

metric assessment of esophageal function. Specific testing for occult thyroid enlargement has been recommended by some investigators. Globus sensation may persist despite a thorough evaluation. Psychiatric consultation and empiric trials may assist patients to cope with the sensation. In addition, patients with globus sensation do not have true dysphagia.¹

Although common in adults, globus sensation is rare in children and warrants appropriate diagnostic evaluation to exclude the presence of a true foreign body or other esophageal pathology.¹ The prognosis is variable. While the majority of patients improve with time, up to one third suffer from a protracted course. When hospitalized, patients with conversion symptoms generally heal within two weeks. Of these patients, however, up to a quarter suffer a recurrence within a year. Some patients remit without specific intervention, presumably as the passage of time reduces psychologic anxiety. A follow-up study of 40 children 4 years after diagnosis revealed that 85% recovered completely and an additional 5% had improved. The study associated a favorable outcome with early diagnosis and good prediagnosis adjustment. The absence of clear organic etiology is a cardinal exclusionary criterion for the diagnosis of globus hystericus. Despite its long history, the etiology of globus hystericus is poorly understood. Explanations have ranged from the supernatural to biologic to psychiatric. It is often described as both the manifestation of a physiologic disorder and as a psychiatric illness. The psychiatric understanding of the development of globus hystericus is the same for other conversion disorders.²

A 58-year-old male attended due to a globus sensation in the throat of 2-month dura-

tion was reported as primary pharyngeal tuberculosis.⁸ There is no relationship between tuberculosis and globus sensation in the literature. We think that there is no association between globus sensation and tuberculosis, it is only a coincidence.

Family members are effective in the transmission of infection. Family screening may be effective in the protection, early detection and therapy of tuberculosis.⁹

Globus sensation is a rare presentation in children, there is a need for further investigation. The history is important for the diagnosis of tuberculosis and globus sensation.

Conflict of Interest

Authors declared no conflict of interest or financial support.

Authorship Contributions

Opinion/Concept: To create the hypothesis or idea of research and / or article: Fadıl Vardar; **Design: Designing a method to achieve results:** Semra Şen; **Inspection/Consultancy: Organizing research / study execution, taking care of progress and taking responsibility:** Fadıl Vardar, Semra Şen; **Data Collection and/or Treatment: Taking responsibility for the follow-up of patients, collection of relevant biological materials, regulation and reporting of data, development of experiments:** Semra Şen, Zümrüt Şahbudak Bal, Katibe Başak Yıldız; **Analysis and/or Consideration: Take responsibility for the logical evaluation and conclusion of findings:** Fadıl Vardar, Semra Şen, Zümrüt Şahbudak Bal; **Resource Agreement: To take responsibility for the search for resources required for work:** Fadıl Vardar, Semra Şen; **Complete Writing: Take responsibility for the writing of all or important parts of the work:** Semra Şen.

REFERENCES

1. Pollack A, Charles J, Harrison C, Britt H. Globus hystericus. *Aust Fam Physician* 2013;42(10):683.
2. Finkenbine R, Miele VJ. Globus hystericus: a brief review. *Gen Hosp Psychiatry* 2004;26(1):78-82.
3. Galmiche JP, Clouse RE, Bálint A, Cook IJ, Kahrilas PJ, Paterson WG, et al. Functional esophageal disorders. *Gastroenterology* 2006;130(5):1459-65.
4. Thompson WG, Heaton KW. Heartburn and globus in apparently healthy people. *Can Med Assoc J* 1982;126(1):46-8.
5. Moser G, Wenzel-Abatzi TA, Stelzeneder M, Wenzel T, Weber U, Wiesnagrotzki S, et al. Globus sensation: pharyngoesophageal function, psychometric and psychiatric findings, and follow-up in 88 patients. *Arch Intern Med* 1998;158(12):1365-73.
6. Cook IJ, Dent J, Collins SM. Upper esophageal sphincter tone and reactivity to stress in patients with a history of globus sensation. *Dig Dis Sci* 1989;34(5):672-6.
7. Deary IJ, Smart A, Wilson JA. Depression and 'hassles' in globus pharyngis. *Br J Psychiatry* 1992;161:115-7.
8. Lee JW, Ryu KA, Kwon KR, Koo BS. Primary pharyngeal tuberculosis presenting as a submucosal tumour. *Int J Oral Maxillofac Surg* 2014;43(8):1005-7.
9. Çetinkaya S, Sümer H. [Tuberculosis prevalence among families of children with positive tuberculin skin test]. *Turkiye Klinikleri J Med Sci* 2006;26(5):500-6.