CHILDHOOD ASTHMA CASE REPORT PRESENTED WITH METOCLOPRAMIDE INTOXICATION

METOKLOPRAMİD ZEHİRLENMESİYLE BAŞVURAN ÇOCUKLUK ÇAĞI ASTIM OLGUSU

Rukiye ÜNSAL SAÇ, MD;[1] İlknur BOSTANCI, MD;[1] M.Ayşin TAŞAR, MD;[1] Yıldız Bilge DALLAR, MD[1]
Ankara Training and Research Hospital, Pediatrics Clinic, Ankara, Turkey
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ABSTRACT

Vomiting, as an unusual manifestation of asthma, is not always considered within the symptoms of asthmatic patients. There are few case reports that vomiting might be a predominant symptom, however no report that vomiting is a sole manifestation of asthma.Ten years old boy admitted with acute dystonic reaction. At the history, metoclopramide was prescribed to him because of repeated vomiting. Persistent vomiting has continued for three years. His history, physical and laboratory evaluation along with the response to bronchodilator eventually ascertained the diagnose of asthma.Vomiting in children, as a prominent manifestation of asthma, should be considered in the differential diagnose of asthma. Metoclopramide medication should be restricted to selected indications which etiology is certainly known, especially in children.

Keywords: *Asthma, vomiting, child, emesis*

ÖZ

Astımın ender bir semptomu olarak kusma, genelde astımlı hastalarda görülen semptomlar arasında sayılmamaktadır. Kusmanın ağırlıklı semptom olarak bildirildiği birkaç olgu sunumu bulunmasına rağmen, astımın tek belirtisi olarak kusma bildirilmemiştir. On yaşında erkek çocuk akut distonik reaksiyon ile başvurdu. Öyküde, tekrar eden kusmaları nedeniyle kendisine metoklopramid reçetelenmişti. İnatçı kusmaları üç yıldır devam etmekteydi. Öyküsü, fizik ve laboratuvar bulguları ve bronkodilatörlere verdiği cevap değerlendirilerek sonunda astım tanısı doğrulandı. Çocuklarda kusma astımın önde gelen semptomu olabileceği için astım ayırıcı tanısında düşünülmelidir. Metoklopramid kullanımı özellikle çocuklarda, etyolojinin kesinlikle bilindiği seçilmiş endikasyonlarla ve sınırlandırılmalıdır.

Anahtar Kelimeler: *Astım, bulantı, çocuk, kusma*

Yazışma adresi / Correspondence Address: Rukiye ÜNSAL SAÇ, Ankara Training and Research Hospital, Pediatrics Clinic, Ankara, Turkey
Tel: 0 312 595 30 00 **e-mail:** rukiyeunsal@hotmail.com

INTRODUCTION

Asthma is a prevalent chronic airway disease leading recurrent episodes of wheezing, breathlessness, chest tightness, and coughing (1). Recurrent coughing during asthma attack can sometimes cause severe vomiting (2, 3).

However, vomiting, as an unusual manifestation, is not always considered within the symptoms of asthmatic patients. There are very few case reports that vomiting might be primarily and sole predominant symptom (2, 3). In these reports, classic coughing episodes or wheezing of asthma were not stated in the symptoms (2, 3).

We present the first case that was diagnosed as asthma after admitting to pediatric emergency department because of metoclopramide intoxication, which was ingested in high doses in order to stop severe vomiting, as a sole manifestation of asthma.

CASE REPORT

A 10-year-old boy admitted to pediatric emergency department because of sudden onset of spasticity. Two weeks ago, coming to our hospital, he was prescribed metoclopramide 10 mgr tablets, 3 times a day, at the primary health care institution, because of severe vomiting. On the admission day, because his vomiting complaint augmented, his mother gave the tablets every two hours to stop vomiting; overall, he took six tablets. After ingesting the last tablet his arms and body were stiffened.

In his detailed history, during the last three years, he had persistent vomiting attacks recurring every 2-3 months. Cough and wheezing were not apparent, however he had a 12 years old sister with asthma diagnose. When insisted, persistent vomiting was associated and subsequent to coughing attacks. He admitted to health institutions several times, but he was prescribed some antibiotics or mucolytic.

We hospitalized him because of metoclopramide intoxication His consciousness was clear. His physical examination revealed an ataxic walk and spasticity, upper extremities were on flexion, body, and neck was on extension backwards giving the body an opisthotonos posture. Spasm of facial and extra ocular muscles caused trismus, a bulbar speech and upward and lateral deviation of the eyes that is called oculogyric crisis. Physical examination did not reveal any other dyskinetic movement. On respiratory system examination, expiration was prolonged. There were diffuse, widespread rhonchi, and rales. Respiratory rate was 42 breaths/min, oxygen saturation was 86%. Other systems' examinations were normal.

His hemogram and biochemical tests were in normal limits. On his chest radiograph, aeration was increased. His spirometry was performed using the Spirolab II model spirometer (Medical International Research (MIR), Via del Maggiolino, 125-00155 Roma, Italy), and the results were assessed using the American Thoracic Society (ATS) and European Respiratory Society (ERS) standards. On his spirometry, forced expiratory volume (FEV) at timed interval of 1 was 1.05 L, expected was 66%. After bronchodilator inhalation, FEV1 and expected were measured as 1.30 L, and 82%, respectively, and reversibility was 24%, indicating that boy with metoclopramide intoxication, was in an acute asthma attack. We started him oxygen, nebulized salbutamol and oral steroid treatment and diphenhydramine 30 mg was initially administered intravenously, followed orally after 4 hours. His spasticity recovered following five hours observation. His other symptoms began to improve on the second day of hospitalization.

He was prescribed a combination of low dose inhaled corticosteroid and long acting inhaled beta2 agonist with short acting inhaled beta2 agonist as reliever medication. After three months regular follow-up, he was free of symptoms and lung functions were normal on his spirometry.

DISCUSSION

Persistent vomiting, as a dominant symptom, is an unusual manifestation in a patient with acute asthma attack (2, 3). Our patient has only been suffering from recurring persistent vomiting. Actually he vomited following coughing attacks of asthma; however coughing and wheezing were not apparent at this boy. In this case, vomiting etiology seen on previous days was not examined to ascertain diagnose, and his medical data on this

matter was unavailable. When his vomiting attacks got worsened, metoclopramide was prescribed to stop severe vomiting, at the last health centre he admitted. Since the mother could not stop vomiting, she gradually increased the dose he received to toxic dose, until adverse neurological effects of metoclopramide occurred.

Metoclopramide is a commonly used antiemetic in the emergency departments to stop nausea and vomiting, caused by conditions unrelated to chemotherapy or radiotherapy. However, little evidence exists to support this agent over placebo (4). Furthermore, the incidence of extra pyramidal symptoms in children even in normal doses of metoclopramide is higher (up to 25%) and its use is limited (5, 6). The drug itself can also cause respiratory failure, secondary to dystonic reaction, acute asthmatic symptoms of wheezing and dyspnea (5). Because there is no specific antidote for metoclopramide intoxication; symptomatic and supportive care is important, as well as diphenhydramine and benztropine may be useful in controlling extra pyramidal reactions (5, 6).

Gastrointestinal symptoms in children with asthma, including diarrhea, vomiting, and abdominal pain was reported to be common than controls (7). A history of posttussive emesis was in 56% frequency among children with physician-diagnosed asthma (8). This rate was 71% among children not formally diagnosed as having asthma but with surrogate markers suggestive of asthma, being both significantly higher than in those with no evidence of asthma (16%) and a history of posttussive emesis (8). On the other hand, in children with solely recurrent and/or severe vomiting, virtually always, asthma is not considered in the differential diagnosis, when there is not an evident history of persistent coughing. The rate of asthma in children among the causes of vomiting originating from respiratory disorders is not known absolutely.

In this case report, we wanted to call attention to vomiting as a very rare but a possible major manifestation in children with asthma that we have encountered. Cough, tachypnea, and wheezing may be disregarded in an asthmatic child presented with persistent vomiting, such as our patient, because asthma is not usually considered in the differential diagnosis of recurrent and/or severe vomiting in children. His asthma disease could be diagnosed hardly only when he admitted to pediatric emergency because of stiffness and opisthotonos due to metoclopramide intoxication used overdose to stop severe vomiting originating from asthma disease.

In summary, vomiting might be a prominent manifestation of asthma in children, and must be considered as an asthmatic symptom in cases presenting clinical symptoms similar in this patient. Metoclopramide medication in children to treat nausea and vomiting, should be restricted strictly to selected indications which etiology is certainly known.

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