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Pill esophagitis caused by telithromycin: A case report

Telitromisine bağlı olarak gelişen özofajit vakası

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A large number of oral drugs have been reported to cause pill-induced esophagitis in the medical literature. To our knowledge, this is the first reported case in which telithromycin was the cause of pill-induced esophagitis. In this report, we describe a male patient who admitted to the hospital with dysphagia and retrosternal pain after taking telithromycin (Ketek®) for acute sinusitis. He had a history of swallowing the film tablet with at least a glass of water and lying down immediately after taking the drug. An upper endoscopic examination demonstrated a deep ulceration of 1 cm diameter in the middle of the esophagus surrounded by relatively normal mucosa. Lansoprazole 30 mg was started. His symptoms improved seven days after cessation of the drug. The esophagus was completely normal in control endoscopy after two weeks. Telithromycin may cause esophageal lesions; therefore, patients should be educated by physicians about the drug's side effects and should drink at least 100 ml water after swallowing the medication. Drug administration should be in the upright position.

Key words: Telithromycin, esophagitis, ulcer

Tıbbi literatürde çok sayıda ilacın oral alımı sonrası gelişen ilaca bağlı özafajit vakası rapor edilmiştir. Bizim bilgilerimize göre, bu vaka telitromisin alımı sonrası gelişen ilk özafajit vakasıdır. Bu vaka sunusunda; Akut sinüzit nedeniyle telitromisin (Ketek) kullanımı sonrası göğüs ağrısı ve disfaji ile hastanemize başvuran bir erkek hasta takdim edilmiştir. Hastanın anamnezinde, az miktarda su ile ilaç yutulması ve ilaç alımından hemen sonra yattığına dair bilgi mevcuttu. Hastanın endoskopik muayenesinde özafagusun ortasında etrafı normal mukoza ile kaplı olan 1 cm çapında derin ülser tespit edilmiştir. İlaç kesilip lansaprazol bağlandıktan 7 gün sonra semptomlar düzelmiştir. 2 hafta sonra yapılan kontrol endoskopisinde özafagustaki lezyonların tamamen düzeldiği gözlenmiştir. Sonuç olarak, Telitromisin oral alımı sonrası özafagusta lezyonlara neden olabilir, bu yüzden doktorlar tarafından telitromisinin yan etkileri konusunda hastalar bilgilendirilmeli ve ilacın en az 100 ml su ile ve ayakta yutulması gerektiği hususunda uyarılmalıdır.

Anahtar kelimeler: Telitromisin, özofajit, ülser

INTRODUCTION

In the literature, more than 80 drugs have been reported to induce esophageal injury (1). Among these, antibacterials such as doxycycline and tetracycline are well-known drugs causing pill esophagitis in more than 50% of cases. The other drugs that cause esophageal injury include alendronate, iron, potassium, vitamin-C, and steroidal and non-steroidal anti-inflammatory preparations (2, 3). This injury is a common cause of esophageal complaints such as severe odynophagia, dysphagia, bleeding and even perforation. History and endoscopic examination are very important in diagnosis, and early endoscopic exam in particular may prevent these severe complications. Treatment of pill-induced esophagitis includes cessation of the offending drug and supportive therapy (4). Ketolides are a new class of semi-synthetic agents derived from erythromycin A. Telithromycin (HMR 3647) is the first member of this new class to be approved for clinical use (5). In the literature, although there are many reports defining these medications, there is no case about telithromycin or macrolide antibiotics. We report herein the case of a man who presented with an esophageal ulcer due to telithromycin.

CASE REPORT

A 43-year-old man was admitted to our clinic with severe dysphagia, retrosternal pain and burning sensation. He was being treated with telithromycin (800 mg/day) for acute sinusitis. The patient's

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complaints started two days after beginning the telithromycin treatment and increased gradually. The detailed history revealed that he had taken the medication with a little amount of water while in the supine position. In laboratory evaluation, hemoglobin was 13.5 g/dl, white blood cell 7500/mm^3, and thrombocyte count 250,000/mm^3; the other biochemical values were normal. The same day upper endoscopy showed several circumferential ulcers in the esophagus at 32 and 35 cm from the incisors (Figure 1), and normal mucosa proximal and distal to the involved area. Biopsies were taken around and at the edge of the lesions, and pathological examination reported non-specific inflammatory changes. We discontinued the telithromycin immediately, and he was then hospitalized and administered lansoprazole 30 mg/day (orally) for relief of the dysphagia. At the second day of the treatment, he began to feel better and his symptoms completely resolved within seven days. The patient was discharged with oral intake and advised to take the lansoprazole 30 mg bid for two weeks. Repeated endoscopic examination after two weeks of treatment showed a completely normal esophagus.

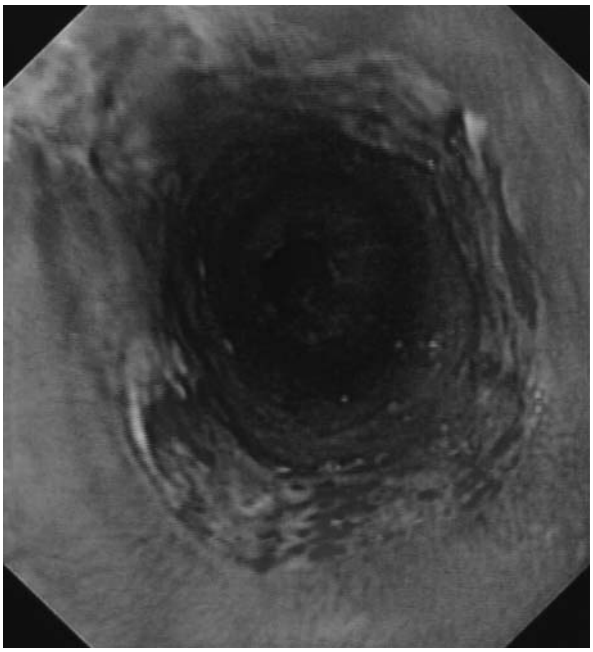

Figure 1. Several well-demarcated round ulcers are seen in the esophagus at 32 and 35 cm from the incisors

DISCUSSION

According to previous reports, there are nearly 80 drugs in the medical literature that are emphasized as related to esophageal injury (1). The implicated drugs are usually antibacterials (especially tetracycline-derived) and anti-inflammatory agents. In addition, alendronate, iron, potassium and vitamin-C preparations have important roles in developing injury (2, 3). Moreover, the proton pump inhibitor was the cause of pill-induced esophagitis, though it is used routinely for the treatment of pill-induced esophagitis (6). Our case with pill-induced esophagitis caused by telithromycin is the first such reported case in the literature.

Many risk factors for pill-induced esophagitis have been discussed, such as patient, esophageal and drug factors. Patient factors include posture and amount of liquid taken with the medication. Esophageal factors are esophageal dysmotility (scleroderma, achalasia) and esophageal stricture. Finally, drug factors comprise the drug formulation and chemical structure (2, 6). When evaluating risks factors of pill-induced esophagitis, drugs per se and the patient factors should be evaluated separately (2). Drugs cause injury of the mucosa with both its direct caustic effects (such as doxycycline) and systemic effects (such as non-steroidal anti-inflammatory drugs). The drug's chemical character, solubility and formal structure (tablet or capsule) are important from the standpoint of mucosal injury. Capsule form of the drugs is more harmful than tablet form (7). Telithromycin (HMR 3647) is the first member of ketolides to be approved for clinical use. It shows good activity against the Gram-positive bacteria responsible for respiratory tract infections including S. pneumoniae resistant to penicillin-G and erythromycin A. Telithromycin (Ketek 400 mg) is tablet form. The most common adverse effects resulting from telithromycin use include diarrhea, headache, dizziness, vomiting and dyspepsia (8). Cause of telithromycin-induced esophagitis is not known. Neverthless, two of the most important factors creating esophageal injury are to swallow the drugs with relatively little water and to lie down shortly afterward, as in our cases (9, 10). Because transit time of the pill is slow and the contact time is long, probability of focal epithelial damage will increase (2). Patients are usually admitted to the hospital with the complaint of severe odynophagia, retrosternal chest pain and dysphagia. History of the patient can reveal wrong usage of the medication, or

inadequate amount of water consumption and supine position during administration. Upper endoscopic examination shows localization and depth of the ulcer, and provides an opportunity to take a biopsy. There is actually no need for biopsy to confirm the diagnosis because there is no specific or pathognomonic histologic change (2). Treatment of pill-induced esophageal injury includes discontinuation of the offending drug, cessation of oral intake of the patients, hospitalization and intravenous administration of fluids and antacids, H2-receptor blockers, sucralfate and proton pump inhibitor (1, 2). To prevent the occurrence of pill-induced esophagitis, it is important that patients should take the medication with at least 100 ml of fluid while in an upright position (11).

In conclusion, telithromycin can cause pill esophagitis and should be added to the list of these drugs. Patients with predisposition for the development of pill-induced esophagitis should be educated about proper swallowing of oral medications.

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