# Isolated Esophageal Involvement in Pemphigus Vulgaris Confused with Esophageal Cancer

Pemfigus Vulgariste Özofagus Kanseri ile Karışan İzole Özofagus Tutulumu

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## ABSTRACT

Pemphigus is a disease characterized by the formation of intraepithelial blisters due to acantholysis caused by immunoglobulin G antibodies against the keratinocyte cell surface holding the mucous membranes and skin. While the oral mucosa is the most affected region, all body cells with multilayered horizontal epithelia such as the conjunctiva, pharynx, larynx, esophagus, vagina, penis, and anus might be affected. Although few pemphigus cases with esophageal involvement have been reported, the incidence of actual involvement is thought to be higher. Our case was guided by an external endoscopy center because of the appearance of esophagus cancer. This pre-diagnosis was excluded in the endoscopic biopsy, and lesions regressed entirely with the treatment given for pemphigus. The co-existence of pemphigus vulgaris and esophagus squamous cell carcinoma has been reported. However, it has not been previously reported that the esophageal involvement of pemphigus, as in our case, has been confused with esophageal cancer. In this case report, we present a pemphigus case with isolated esophageal involvement in a pemphigus patient in clinical remission. We found it worthy of presentation because of the confusion with esophageal cancer due to an endoscopy result from an external center.

Keywords: Pemphigus, dysphagia, esophageal involvement, endoscopy

ÖΖ

Pemfigus, mukozaları ve deriyi tutan keratinosit hücre yüzeyine karşı immünoglobulin G antikorların neden olduğu akantoliz nedeniyle intraepitelyal büllerin oluşması ile karakterize bir hastalıktır. Oral mukoza en çok etkilenen bölge iken, konjonktiva, yutak, larinks, özofagus, vajinal, penil ve anal mukoza gibi cok katmanlı epitelyumu olan tüm yücut alanları etkilenebilir. Pemfigus özofagus tutulumu olan az sayıda olgu bildirilmiş olmasına rağmen, gerçek tutulum insidansının daha yüksek olduğu düşünülmektedir. Olgumuz özofagus kanseri endoskopik görünümü nedeniyle dış merkezden hastanemize yönlendirilmişti. Bu ön tanı endoskopik biyopside dışlandı ve pemfigus için verilen tedavi ile lezyonlar tamamen geriledi. Literatürde, pemfigus vulgaris ve özofagus skuamöz hücreli karsinomun birlikte görüldüğü olgular bildirilmiştir. Ancak, bizim olgumuzda olduğu gibi pemfigusun özofagus tutulumunun özofagus kanseri ile endoskopik olarak karıştırıldığı bir olgu daha önce bildirilmemiştir. Bu olgu sunumunda, pemfigus vulgaris takibi sırasında izole özofagus tutulumu olan bir olgu sunuldu. Olgumuzu, dış merkez endoskopisinde özofagus kanseri ile tanıda karışıklık olması ve oral mukozal tutulum olmaksızın izole özofagus tutulumu göstermesi nedeniyle sunum yapmaya değer bulduk.

Anahtar Kelimeler: Pemfigus, disfaji, özofagus tutulumu, endoskopi

## Introduction

Pemphigus is a disease characterized by the formation of intraepithelial blisters due to acantholysis caused by immunoglobulin G (IgG) antibodies against the keratinocyte cell surface holding the mucous membranes and skin (1). Pemphigus vulgaris (PV) is the most common and life-threatening subtype of pemphigus (1). While the oral mucosa is the most affected region, all body cells with multilayered horizontal epithelia such as the conjunctiva, pharynx, larynx, esophagus, vagina, penis and anus might be affected (2).

In this case report, we present a pemphigus case with isolated esophageal involvement in a pemphigus patient in clinical remission. We found it worthy of presentation because of the confusion with esophageal cancer (CA) due to an endoscopy result from an external center.

## **Case Report**

A 55-year-old female patient complained of odynophagia and pain in her chest for about two months. The case was started proton pump inhibitor

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©Copyright 2019 by the İstanbul Training and Research Hospital/İstanbul Medical Journal published by Galenos Publishing House. ©Telif Hakkı 2019 İstanbul Eğitim ve Araştırma Hastanesi/İstanbul Tıp Dergisi, Galenos Yayınevi tarafından basılmıştır. therapy and alginic acid at an external center with the diagnosis of esophagitis. Her symptoms did not improve. The case was diagnosed with a vegetative mass by esophagogastroduodenoscopy (EGD) and referred to gastroenterology unit of our hospital with the suspicion of esophageal CA. There was no biopsy at the external center, and the only suspicion of malignancy was noted due to endoscopic appearance and vegetative mass.

The patient was referred to our outpatient dermatology clinic from the gastroenterology department. She had been followed-up for pemphigus in our department since June 2008. No oral mucosal and skin lesions were observed on current physical examination (Figure 1). The patient's last pemphigus attack was two years ago in the form of eroded lesions in the oral mucosa. She had been in remission for one year and received prednisolone 4 mg once daily for three months. During endoscopy, a mucosal biopsy was recommended for the differential diagnosis of esophagus CA and esophageal involvement of pemphigus.

In the EGD, multiple erosions in the form of white plaques were observed on the esophageal surface (the lesion was seen to extend from the mucosa to the lumen in a single site), which continued 7-8 cm from 25 cm (Figure 2). It was observed that the esophageal mucosa was dissected when the endoscopic biopsy was performed. The endoscopic interpretation of the gastroenterologist was in the form of esophagitis dissecans superficialis (EDS) in favor of esophageal involvement by pemphigus.

The biopsy material was interpreted as insufficient, so the level of dissociation in the histopathology could not be seen clearly. However, there were no signs of malignancy in the biopsy, and the malignancy was excluded histopathologically. The case was diagnosed with PV with isolated esophageal involvement, both clinically and endoscopically. Thirty-two mg/day prednisolone and mycophenolate mofetil 360 mg twice a day were started. A control endoscopy was planned for the patient whose complaints regressed one month later. In the endoscopy, esophageal lesions regressed entirely (Figure 3). A gradual decrement was planned in the treatment of the patient whose lesions had regressed. Informed consent was obtained from the patient for the publication of this case report and images.

#### Discussion

PV is an uncommon autoimmune bullous disease in which bullae form as a result of acantholysis by IgG autoantibodies against intercellular antigens of stratified epithelia (1). PV can affect other mucosal surfaces such as those of the anus, genital mucosa, nasopharynx, conjunctivae, cervix, and esophagus (1,2). Although few cases with esophageal involvement of pemphigus have been reported, the incidence of actual involvement is thought to be higher (3)

Odynophagia and dysphagia are the most common symptoms of esophageal involvement. However, patients may be asymptomatic (3). In asymptomatic patients, most esophageal involvement is thought to be overlooked because endoscopy is not usually performed. Recent immunohistopathological studies have shown that esophageal involvement is higher than in previous reports (2). There are approximately 60 articles on PV involving the esophagus in the literature. The actual frequency is probably much higher. Blisters, erosions, and an easily separated esophageal mucosa (Nikolsky sign) are the most common findings on EGD. Calka et al. (2) found esophageal involvement in up to 46.15% PV patients by endoscopy. Mignogna et al. (4) found esophageal



Figure 1. No oral mucosal lesions were observed in the present examination



**Figure 2.** In the EGD, multiple erosions in the form of white plaque were observed on the esophageal surface (the lesion was seen to extend from the mucosa to the lumen in a single site), which continued 7-8 cm from 25 cm

EGD: esophagogastroduodenoscopy



Figure 3. In the control endoscopy, esophageal lesions were completely regressed

involvement in five out of eight patients examined. Our case was referred by an external endoscopy center due to suspicion of esophageal CA. This pre-diagnosis was excluded in the endoscopic biopsy, and lesions regressed entirely with the treatment given for pemphigus.

The co-existence of PV and esophagus squamous cell carcinoma has been reported (5). However, it has not been previously reported that the esophageal involvement of pemphigus, as in our case, has been confused with esophageal CA. We excluded the suspicion of malignancy by esophageal biopsy.

Bullous diseases may influence the esophagus in such a way that there is sloughing of the entire mucous membrane (1). The composition of such an esophageal cast has been termed EDS (2). EDS is also incorporated with trauma, immunosuppression, smoking, and medication (5). This type of involvement may not always be seen in endoscopy, which may lead to confusion with other differential diagnoses such as candidal/ infective esophagitis and steroid-induced esophagitis (6). In our case, we excluded malignancy and other preliminary diagnoses by biopsy, but because of the absence of full-thickness biopsy, we could not make a judgment about the place of decomposition and exact histopathological PV. At this stage, we endoscopically diagnosed PV in the patient, relying on the experience of the endoscopist. We also achieved a successful outcome with treatment for PV. In an endoscopy study, it was found that in skilled hands, the endoscopy was sufficient to determine the esophageal involvement of pemphigus (7). As in our case, endoscopic diagnosis can be made in those cases where there is inadequate material for a biopsy. However, the experience of the endoscopist and the suspicion of the diagnosis of pemphigus are important in these cases.

Esophageal involvement should be considered when there are symptoms such as dysphagia and odynophagia with a previous history of PV (8). The majority of patients with lesions in the esophagus are middleaged women, as in our case. Most case reports in the literature define patients with PV as having either oral or cutaneous lesions at the time of diagnosis of esophageal involvement (9,10). At the same, in a study of esophageal involvement of pemphigus, oral mucosal involvement was reported in 87% of the patients (11). As in our case, isolated esophageal relapse is an unexpected condition without oral lesions.

We have described a case of PV in which the esophagus, which was previously misdiagnosed as esophagus CA, was seriously involved without skin or oropharynx involvement. Our case is valuable because it showed only isolated esophageal in a pemphigus patient in clinical remission without other skin and oral mucosa involvement. At the same time, no case has been reported in the literature in which esophageal involvement of pemphigus and esophagus CA were confused. For these reasons, we found it appropriate to publish.

#### Conclusion

Identification of the esophageal involvement of pemphigus may change the management requiring teamwork between dermatologists and the gastroenterologist. Endoscopic assessment is, therefore, necessary to discriminate between esophageal involvement of PV and other pathologies, which warrant significant differences in management. The endoscopic inspection should be applied carefully in talented hands for esophageal symptoms to decide the correct diagnosis and allow quick treatment.

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