ACG CASE REPORTS JOURNAL

CASE REPORT | ESOPHAGUS

Recurrent Esophageal Stricture Secondary to Pemphigus Vulgaris: A Rare Diagnostic and Therapeutic Challenge

Rana Muhammad Usman, MD[1], Qasim Jehangir, MD[1], and Muhammad Bilal, MD[1]

[1]*Division of Gastroenterology and Hepatology, Department of Medicine, University of Tennessee Health Science Center, Memphis, TN*

ABSTRACT

Pemphigus vulgaris (PV) is an autoimmune blistering disorder of skin and mucous membranes, characterized by acantholysis, can be life threatening, and carries significant morbidity. Esophageal involvement is uncommon, and the diagnosis can often be delayed. Esophageal stricture secondary to PV is extremely rare, and there are no guidelines on the management of this complication. We present a case of recalcitrant esophageal stricture, secondary to PV, successfully treated with topical and intralesional steroids. Moreover, we review the literature pertaining to esophageal PV and the management of esophageal strictures.

INTRODUCTION

Pemphigus vulgaris (PV) is a blistering disorder of skin and mucous membranes with an incidence of 0.1–3.2 cases per 100,000 and a nearly equal male-to-female ratio.[1,2] PV is a potentially life-threatening disease, with a mortality rate of approximately 5%–15%.[3] Esophageal involvement is infrequently reported in the literature and presents with dysphagia and odynophagia due to mucosal erosions and ulcerations. Esophageal stricture from PV is rare, and there are only few reported cases on this complication.[4–6]

CASE REPORT

A 65-year-old white woman with a 4-year history of PV was seen for evaluation of intermittent dysphagia. She had been maintained on mycophenolate mofetil 500 mg, azathioprine 50 mg, acyclovir 400 mg, and alendronate 35 mg. Her high-dose prednisone therapy was tapered 3 months earlier because of controlled disease. She had no other medical conditions. Examination was remarkable for multiple small ulcers in oral cavity. Esophagogastroduodenoscopy showed linear ulcers in the mid-esophagus and a mid-esophageal stricture 25 cm from the incisors with a suspected diameter of approximately 16–18 mm (Figure 1). Serial balloon dilatations were performed, from 18 mm to 19 mm followed by 20 mm. She was started on omeprazole 40 mg twice daily, and alendronate was held. Her symptoms improved, but only temporarily. She presented again in 3 months with recurrent stricture.

At this time, the patient was referred to us. We noted similar stricture and performed 3 controlled radial expansion (CRE) balloon dilations, 18-mm dilation followed by 19-mm and 20-mm dilations each for 30 seconds. Biopsy of the stricture was also taken. Pathology showed suprabasilar acantholysis consistent with esophageal PV (Figure 2). Two months later, she again presented with dysphagia and recurrent stricture. Three CRE balloon dilations were performed again, 18-mm dilation followed by successful 19-mm and 20-mm dilations, each for 30 seconds (Figure 3). We also injected intralesional triamcinolone 10 mg in 4 quadrants around the lesion. In addition, topical fluticasone 220 μg was prescribed. The patient was continued on the same systemic immunosuppressive regimen without any changes in dosage. The patient responded well, and her dysphagia resolved completely. Follow-up esophagogastroduodenoscopy 12 months later showed complete healing of ulcers and stricture (Figure 4).

ACG Case Rep J 2019;6:1–3. doi:10.14309/crj.0000000000000022. Published online: February 25, 2019

Correspondence: Muhammad Bilal, MD, University of Tennessee Methodist Physicians, 1325 Eastmoreland, Ste 370, Memphis, TN 38104 (bilal.md@gmail.com).

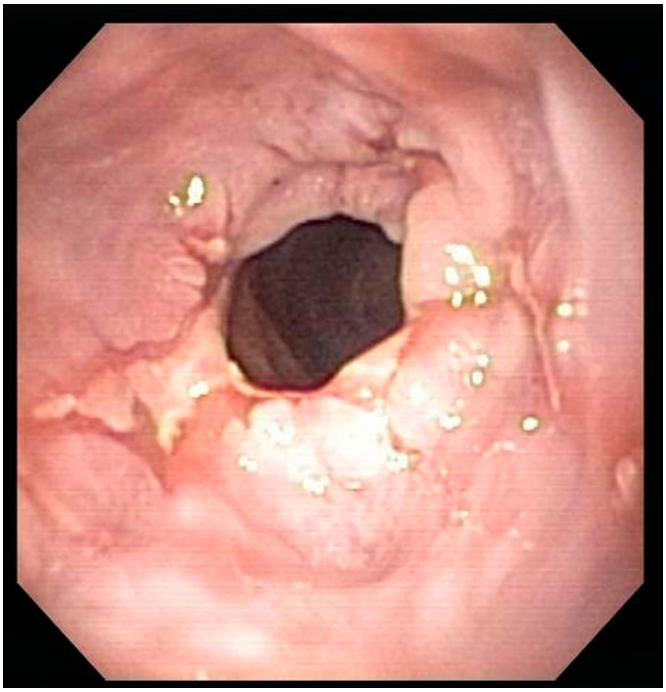

Figure 1. Esophagogastroduodenoscopy showing pretreatment mid-esophageal stricture.

DISCUSSION

PV is an autoimmune disorder characterized by intraepithelial blister formation. This is due to the loss of adhesion between epidermal cells (acantholysis) caused by circulating Immunoglobulin G autoantibodies directed against intracellular adhesion molecules desmoglein 1 and 3.[7] Patients develop flaccid blisters and erosions of skin and mucous membranes, typically oral mucosa. Desmoglein 3 is strongly expressed in esophageal epithelia, and esophageal PV is now being reported in the literature.[8–10] Some people may not have skin lesions at the time of esophageal disease.[11] The lack of cutaneous findings can lead to a delay in diagnosis, as in our patient whose skin lesions had resolved under optimal immunosuppressive therapy and was initially misdiagnosed as peptic stricture. In addition, because some patients with esophageal involvement may be asymptomatic, endoscopy may not be routinely performed; hence, esophageal PV may be underreported.

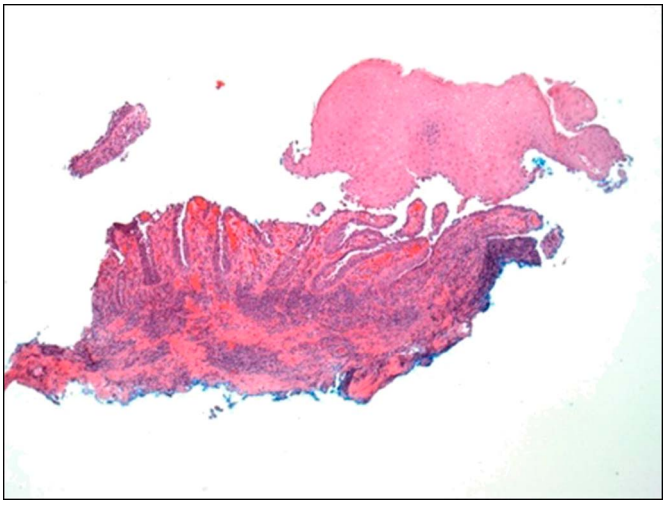

Figure 2. Representative histologic section showing suprabasilar acantholysis consistent with esophageal pemphigus vulgaris.

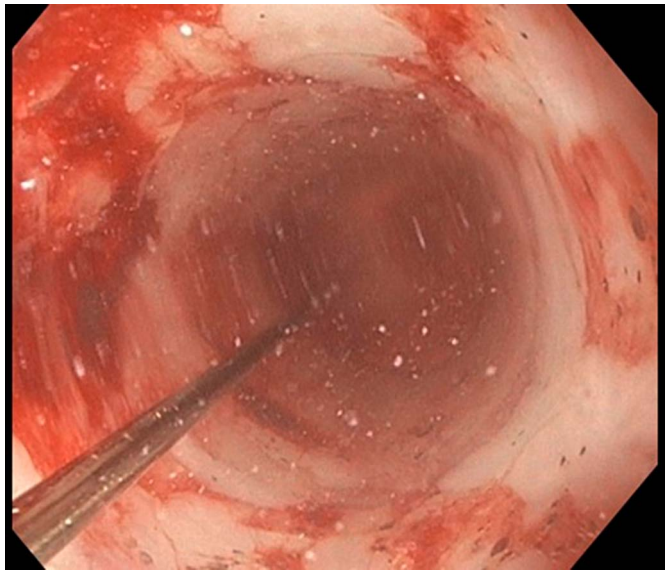

Figure 3. Esophagogastroduodenoscopy showing balloon dilation of stricture.

Some physicians argue against endoscopic examination considering it a risky procedure because of fragility of the esophageal mucosa and potential Nikolsky sign (clinical sign elicited by a gentle mechanical pressure to the mucosa or skin resulting in blisters

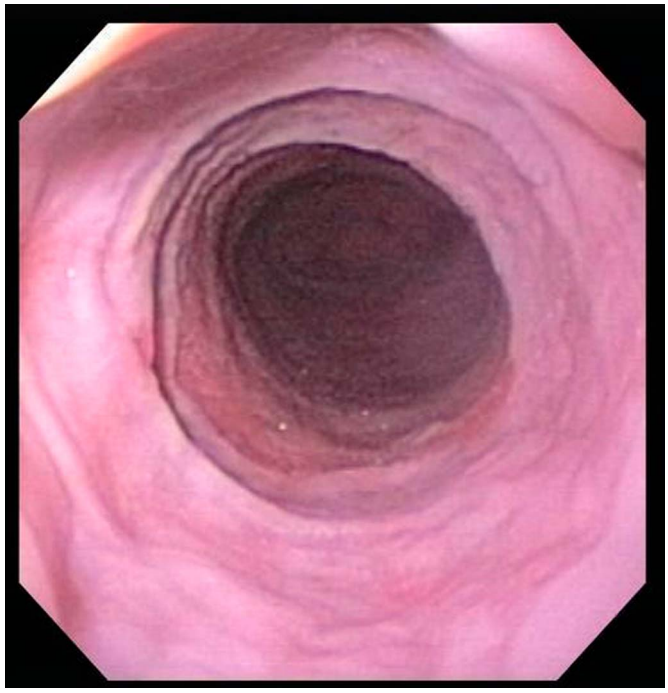

Figure 4. Esophagogastroduodenoscopy showing posttreatment resolution of stricture.

separating or peeling away).[3,12] However, endoscopic examination is vital to the diagnosis of esophageal PV and considered safe because neither biopsy nor brushing procedures increase the risk of worsening esophageal lesions.[13] Moreover, endoscopy can be helpful in ruling out peptic ulcer disease because many patients with PV are maintained on corticosteroid therapy, a risk factor for peptic ulcer disease. Endoscopic findings of esophageal PV usually include mucosal local erythema, red longitudinal lines, blisters, erosions, and ulcers.[10] PV can also rarely present as esophagitis dissecans superficialis, which can include stripped mucosa with bleeding, total desquamation of the esophageal mucosa without bleeding, long linear mucosal break and vertical fissures, and circumferential cracks with peeling.[14] Stricture formation is rare in patients with esophageal PV. Differential diagnosis includes achalasia, peptic stricture, pill esophagitis, postradiation stricture, motility disorder, and Schatzki ring.

Treatment options for esophageal strictures include acid suppression therapy, endoscopic dilation using balloons or bougies, endoscopic stricturoplasty, and stenting.[5,15] Intralesional steroid injection is an effective option for resistant peptic strictures.[16] However, there is no consensus on the management of esophageal strictures in patients with PV. In one case, intravenous immunoglobulin resulted in remission.[17] To our knowledge, there has been no reported case of intralesional steroid approach for management of strictures in esophageal PV, although steroid injections have been used to manage resistant cases of oropharyngeal PV.[18] We report a case of recurrent esophageal stricture in a pemphigus patient who was on maximal medical therapy and had failed multiple balloon dilations. The patient was successfully treated with intralesional steroids, followed by oral topical fluticasone. The topical use of steroids is the recommended treatment for eosinophilic esophagitis, which we used as a trial in our patient because both diseases have autoimmune pathophysiology.[19] Thongprasom recently reported the effectiveness of topical steroids in the treatment of oral lesions in PV.[20] In our case, PV esophageal stricture response to intralesional and topical steroids was prompt, complete, and sustained on 12-month follow-up.

In summary, we highlight the diagnostic and therapeutic challenge of recurrent esophageal stricture due to PV. Clinical awareness of the condition and early biopsy of esophageal stricture are encouraged. Our experience suggests that intralesional steroid injections can be used for recurrent esophageal stricture arising from PV. Topical steroids can be a useful adjunct. Further studies to evaluate the efficacy of topical and intralesional steroids in patients with esophageal strictures from PV will be helpful.

DISCLOSURES

Author contributions: All authors contributed equally to the manuscript. M. Bilal is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received July 15, 2018; Accepted December 21, 2018

REFERENCES

1. Yeh SW, Sami N, Ahmed RA. Treatment of pemphigus vulgaris: Current and emerging options. *Am J Clin Dermatol*. 2005;6(5):327–42.
2. Groves RW. Pemphigus: A brief review. *Clin Med (Lond)*. 2009;9(4):371–5.
3. Ahmed AR, Moy R. Death in pemphigus. *J Am Acad Dermatol*. 1982;7(2): 221–8.
4. Furusawa K, Hasegawa T, Hirasawa Y, Ikeda S. Mucous membrane pemphigoid with esophageal stricture treated with balloon dilatation. *J Dermatol*. 2015;42(3):325–7.
5. Watkinson AF, Vretenar DF, Morrison MD, Burhenne HJ. Benign mucous membrane pemphigoid: Treatment of esophageal stricture. *Can Assoc Radiol J*. 1994;45(2):140–2.
6. Al-Janabi A, Greenfield S. Pemphigus vulgaris: A rare cause of dysphagia. *BMJ Case Rep*. 2015;2015:1–3.
7. Mihai S, Sitaru C. Immunopathology and molecular diagnosis of autoimmune bullous diseases. *J Cel Mol Med*. 2007;11(3):462–81.
8. Shirakata Y, Amagai M, Hanakawa Y, Nishikawa T, Hashimoto K. Lack of mucosal involvement in pemphigus foliaceus may be due to low expression of desmoglein 1. *J Invest Dermatol*. 1998;110(1):76–8.
9. Lenz P, Amagai M, Volc-Platzer B, Stingl G, Kimbauer R. Desmoglein 3-ELISA: A pemphigus vulgaris specific diagnostic tool. *Arch Dermatol*. 1999; 135(2):143–8.
10. Galloro G, Mignogna M, de Werra C, et al. The role of upper endoscopy in identifying oesophageal involvement in patients with oral pemphigus vulgaris. *Dig Liver Dis*. 2005;37(3):195–9.
11. Goldberg NS, Weiss SS: Pemphigus vulgaris of the esophagus in women. *J Am Acad Dermatol*. 1989;21(5 Pt 2):1115–8.
12. Revuz J. Oesophageal involvement in pemphigus vulgaris. *Lancet*. 2000; 355(9204):656.
13. Gomi H, Akiyama M, Yakabi K, Nakamura T, Matsuo I. Esophageal involvement in pemphigus vulgaris. *Lancet*. 1999;354(9192):1794.
14. Hokama A, Yamamoto Y, Taira K, et al. Esophagitis dissecans superficialis and autoimmune bullous dermatoses: A review. *World J Gastrointest Endosc*. 2010;2(7):252–6.
15. de Wijkerslooth LR, Vleggaar FP, Siersema PD. Endoscopic management of difficult or recurrent esophageal strictures. *Am J Gastroenterol*. 2011; 106(12):2080–91.
16. Zein NN, Greseth JM, Perrault J. Endoscopic Intralesional steroid injections in the management of refractory esophageal strictures. *Gastrointest Endosc*. 1995;41(6):596–8.
17. Barbosa Ldo N, Silva RS, Verardino GC, Gripp AC, Alves Mde F. Mucous membrane pemphigoid with severe esophageal stricture. *Bras Dermatol*. 2011;86(3):565–8.
18. Mignogna MD, Fortuna G, Leuci S, Adamo D, Dell'Aversana Orabona G, Ruoppo E. Adjuvant triamcinolone acetonide injections in oro-pharyngeal pemphigus vulgaris. *J Eur Acad Dermatol Venereol*. 2010;24(10):1157–65.
19. Dellon ES, Gonsalves N, Hirano I, Furuta GT, Liacouras CA, Katzka DA. ACG clinical guideline: Evidenced based approach to the diagnosis and management of esophageal eosinophilia and eosinophilic esophagitis (EoE). *Am J Gastroenterol*. 2013;108(5):679–92.
20. Thongprasom K. A review of the effectiveness and side-effects of fluocinolone acetonide 0.1% in the treatment of oral mucosal diseases. *Acta Stomatol Croat*. 2017;51(3):240–7.

Copyright: © 2019 The Author(s). Published by Wolters Kluwer Health, Inc. on behalf of The American College of Gastroenterology. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.