THE AMERICAN JOURNAL of MEDICINE®

IgG4-Related Disease of the Pharynx with Spontaneous Regression

To the Editor:

Immunoglobulin G4-related disease (IgG4-RD) is a rare chronic fibroinflammatory condition that may affect any organ, with features of tumefaction, fibrosis, and infiltration of IgG4-positive plasma cells.[1,2] Treatment is with corticosteroids, although spontaneous remissions have been reported in IgG4-RD of the pancreas (type 1 autoimmune pancreatitis)[3,4] and submandibular glands.[5] We report a rare case of a patient with IgG4-RD of the pharynx that spontaneously regressed without treatment.

CASE REPORT

A 38-year-old man presented with a 3-month history of sore throat, dysphagia, and odynophagia. Flexible laryngoscopy found an ulcerative mass at the right pyriform sinus extending to the epiglottis, arytenoid, and posterior pharyngeal wall. On computed tomography, the mass appeared ill defined and heterogeneously enhancing, measuring 2.2 cm × 1.8 cm × 2.7 cm (Figure 1A).

Direct laryngoscopy and esophagoscopy revealed 2 ulcerative lesions (2 cm × 1 cm each) at the right post-cricoid region and tonsil, respectively. The right pyriform sinus, arytenoid, and epiglottis appeared edematous without a definite mass. Biopsies of these lesions revealed dense lymphoplasmacytic infiltrate (Figure 1B) and storiform-type fibrosis (Figure 1C) with prominent increase in IgG4-positive plasma cells (Figure 1D), confirming the diagnosis of IgG4-RD. However, protein electrophoresis and nephelometric immunoassay found that serum IgG4 was not elevated.

Two months later, the patient reported reduced sore throat and dysphagia. On endoscopy, the post-cricoid lesion appeared smaller while the tonsillar lesion had resolved. He declined steroid therapy and defaulted subsequent follow-up. In the intervening period, he presented to another hospital with recurrent bleeding from a cecal ulcer, for which he underwent a right hemicolectomy. A year later, he returned to our clinic with complete resolution of symptoms and normal findings on endoscopy. At 18 months, he remained asymptomatic with no evidence of disease recurrence.

DISCUSSION

To our knowledge, this is the first report of spontaneous regression of IgG4-RD of the upper aerodigestive tract. In the head and neck region, IgG4-RD rarely affects the pharynx,[6,7] being more common in the salivary glands, sinonasal region, thyroid, and lymph nodes.[2] An international consensus guidance has suggested that not all cases require immediate treatment, and watchful waiting may be possible in patients with asymptomatic lymphadenopathy or mild submandibular gland enlargement.[8] Close follow-up is recommended because the disease may recur months or years later.[9] Several factors have been reported to predict spontaneous remission, such as female sex,[3,10] serum C3 levels,[10] and absence of serum IgG4 elevation.[3] In contrast,

Funding: None.

Conflicts of Interest: None to declare.

Authorship: All authors had access to the data and a role in writing the manuscript.

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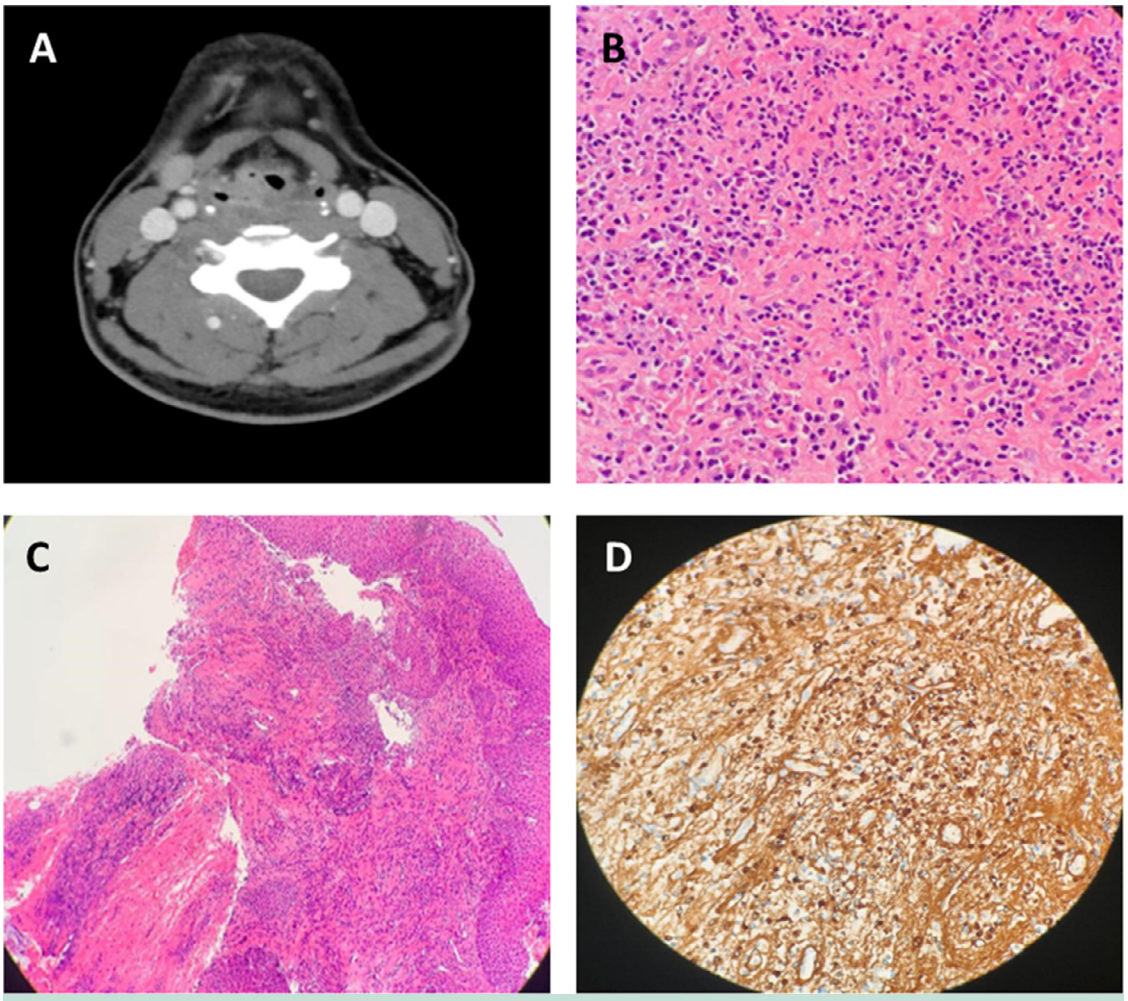

Figure **(A)** Computed tomography showed an ill-defined heterogeneously enhancing lesion occupying the right pyriform sinus. **(B)** Dense lymphoplasmacytic infiltrates on hematoxylin and eosin (H & E) stain (× 10). **(C)** Storiform-type fibrosis on H&E stain (× 4). **(D)** Immunostaining for immunoglobulin G4 (IgG4) showing more than 40 IgG4-positive cells per high powered field (× 10).

high serum IgG4 levels predicted disease deterioration in untreated patients.[10]

CONCLUSION

Our case highlights that even in anatomic sites rarely affected by IgG4-RD such as the pharynx, spontaneous remission may be possible, and may relate to the absence of serum IgG4 elevation.

ACKNOWLEDGMENT

We would like to thank the Director-General of Health Malaysia for his permission to publish this article.

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https://doi.org/10.1016/j.amjmed.2022.06.004

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