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Case Report

Granulomatous Gastritis Associated with Sarcoidosis: Case Report

Abstract

Granulomatous gastritis is a condition which may occur in association with Crohn's disease, sarcoidosis, Wegener's granulomatosis, tuberculosis, foreign body reaction or certain drugs including cocaine. Here, we report a diagnosis of granulomatous gastritis in a sarcoidosis patient who presented with non-specific dyspeptic complaints.

Case Report

The 41-year-old female patient, who had a prior diagnosis of sarcoidosis and is currently in remission, presented to our clinic with abdominal bloating, indigestion and heartburn. Her upper gastrointestinal system endoscopy demonstrated normal esophagus and duodenal mucosa, but hyperemic and edematous gastric mucosa at the antrum and corpus. Gastric biopsies from the antrum and corpus were taken. The result of the biopsy was reported as *H. pylori*-positive chronic gastritis in the antrum and granulomatous gastritis. Granulomatous gastritis without caseification consisting of epithelioid histiocytes and multinuclear giant cells were also observed with the biopsies (Figures 1-4). The patient was therefore questioned again and described no evidence suggestive of sarcoidosis or any complaints other than dyspeptic ones. With completely normal results from pulmonary x-ray, abdominal ultrasonography and laboratory investigations, treatment for sarcoidosis was not deemed necessary. The patient was given proton pump inhibitor therapy together with a 14-day clarithromycin, bismuth subsalicylate and tetracycline therapy for *helicobacter pylori* eradication. Patient's follow-up examination demonstrated that her complaints disappeared following eradication. Cortisone therapy was therefore not commenced.

Discussion

Granulomatous gastritis is a subtype of chronic gastritis that may be infectious, noninfectious, or idiopathic in etiology [1-3]. In developed countries, the most common causes of granulomatous gastritis are Crohn disease and sarcoidosis, while in developing countries, infectious causes are more common. The cause of granulomatous gastritis cannot be identified in up to 25 percent of patients. These individuals

are considered to have "granulomatous gastritis of uncertain etiology." Some of these patients will eventually present with an identifiable etiology for the granulomatous gastritis. The diagnosis of granulomatous gastritis is based on the histopathologic evaluation of gastric tissue.

Sarcoidosis is an inflammatory condition characterized by development of chronic, systemic, non-caseating granuloma [4-10]. With the exact cause still unknown, the disease affects mostly the respiratory tract. Sarcoidosis may occur at any age but is the most frequent between 20 to 50 years of age, and women are affected more frequently regardless of the age group or ethnicity. The prevalence of the disease varies by geography. The region with the highest sarcoidosis incidence is the northern European countries, with 5 to 40 cases in every 100.000 people [5,6].

GIS sarcoidosis may either be a component of pulmonary sarcoidosis or an entity in itself. Sarcoidosis rarely involves the GI tract, but the stomach is the most commonly affected area within the GIS. Isolated sarcoidosis of the stomach is quite rare. Sarcoid lesions in GIS can exist together with hilar lymphadenopathy and/or disseminated lesions, or may be seen before or after them [7-9].

For this patient with remitting sarcoidosis, granulomatous gastritis discovered with the endoscopy performed to investigate dyspeptic complaints represents an interesting case. We believe that sarcoidosis of the stomach in our patient developed following pulmonary sarcoidosis. No organ involvement associated with an active sarcoidosis was observed with the pulmonary x-ray, abdominal ultrasonography and hematologic investigations performed for the patient. Endoscopic investigations of the stomach involved no appearances that are specific for sarcoidosis and

are differ from other conditions that result in chronic gastritis. Differential diagnosis ruled out the conditions associated with granulomatous gastritis, including Crohn's disease foreign body reaction, tuberculosis, histoplasmosis or syphilis [10]. The pathologically differentiating character of sarcoidosis is non-caseating granulomas. Macrophages differentiating to epithelioid cells with the effect of cytokines merge together to form giant cells. The resulting granulomas secrete chemical compounds such as calcitriol and the angiotensin converting enzyme. The structure of a granuloma contains lymphocytes, macrophages, epithelioid cells, multinuclear giant cells, fibroblasts and mast cells. The pathological investigations of our patient demonstrated granuloma foci in the mucosa (HE; x100), further granuloma foci composed of histiocytes and non-necrotic granuloma structures formed of giant cells and histiocytes in the lamina propria (Figures 1-4).

In conclusion, granulomatous gastritis is a very rare type of inflammation in the stomach. Its incidence in the series reported

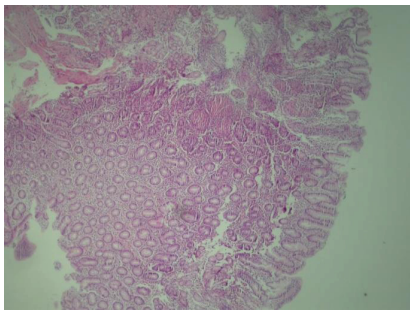


Figure 1: Granulomatous foci in the mucosa (HE; x40).

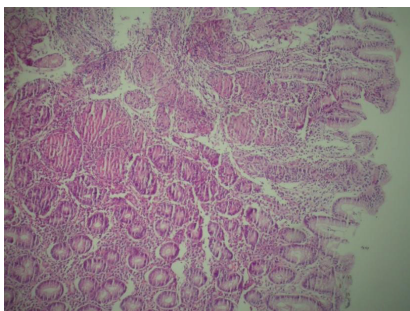


Figure 2: Granuloma foci in the mucosa (HE; x100).

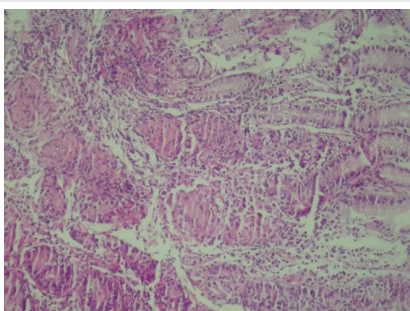


Figure 3: Granuloma foci formed of histiocytes in the lamina propria (HE; x100).

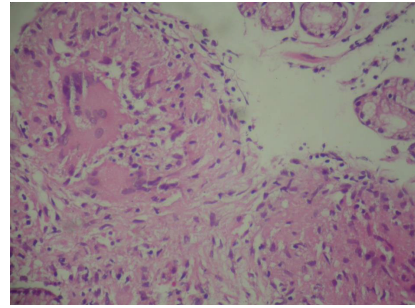


Figure 4: Non-necrotic granuloma structures formed of giant cells and histiocytes (HE; x400).

in the literature varies between 0.09 to 0.35%. A sarcoidosis of the stomach patient with a prior diagnosis of sarcoidosis who was under drug-free monitoring and was diagnosed with granulomatous gastritis following the GIS endoscopy taken to elucidate dyspeptic complaints and experienced improvement with anti-H. Pylori treatment without requiring cortisone therapy was presented in this report.

References

- Renault M, Goodier A, Subramony C, Hood B, Bishop P, et al. (2010) Age-related differences in granulomatous gastritis: a retrospective, clinicopathological analysis. *J Clin Pathol* 63: 347. [Link: https://goo.gl/PRTW3a](https://goo.gl/PRTW3a)
- Kamani L, Mumtaz K, Azad NS, Jafri W (2008) Granulomatous gastritis: a diagnostic dilemma? *Singapore Med J* 49: e222-224. [Link: https://goo.gl/hDLrTh](https://goo.gl/hDLrTh)
- Yamasaki T, Nebiki H, Kurai O (2009) A case of isolated granulomatous gastritis that spontaneously resolved without Helicobacter pylori eradication. *Clin J Gastroenterol* 2: 17-21. [Link: https://goo.gl/J3GSU6](https://goo.gl/J3GSU6)
- Afshar K, BoydKing A, Sharma OP, Shigemitsu H (2010) Gastric sarcoidosis and review of the literature. *J Natl Med Assoc* 102: 419-422. [Link: https://goo.gl/rFnJ3L](https://goo.gl/rFnJ3L)
- Vahid B, Spodik M, Braun KN, Ghazi LJ, Esmaili A (2007) Sarcoidosis of gastrointestinal tract: a rare disease. *Dig Dis Sci* 52: 3316. [Link: https://goo.gl/sCXAVz](https://goo.gl/sCXAVz)
- Dulai PS, Rothstein RI (2012) Disseminated sarcoidosis presenting as granulomatous gastritis: a clinical review of the gastrointestinal and hepatic manifestations of sarcoidosis. *J Clin Gastroenterol* 46: 367-374. [Link: https://goo.gl/zTbwLU](https://goo.gl/zTbwLU)
- Ceylan E, Şen S, Coskun A, Meteoglu İ, Demirtaş N, et al. (2015) Gastric involvement of sarcoidosis in a patient with multiple lung nodules. *J Res Med Sci* 20: 525-528. [Link: https://goo.gl/iWQAsY](https://goo.gl/iWQAsY)
- Patel RV, Winter RW, Chan WW, Sparks JA (2017) Isolated gastric sarcoidosis: a rare entity. *BMJ Case Rep* 8. [Link: https://goo.gl/NknLAU](https://goo.gl/NknLAU)
- Niitsu H, Tanabe K, Tokumoto N, Suzuki T, Tanaka A, et al. (2012) Idiopathic granulomatous gastritis resembling a gastrointestinal stromal tumor. *Case Rep Gastroenterol* 6: 502-509. [Link: https://goo.gl/SQuKoS](https://goo.gl/SQuKoS)
- Miyamoto M, Haruma K, Yoshihara M, Sumioka M, Kamada T, et al. (2003) Isolated granulomatous gastritis successfully treated by Helicobacter pylori eradication: a possible association between granulomatous gastritis and Helicobacter pylori. *J Gastroenterol* 38: 371-375. [Link: https://goo.gl/ovQZP2](https://goo.gl/ovQZP2)

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