

Comorbidity of Recurrent Aphthous Stomatitis and Polyps Ventriculi

Josipa Sanja Gruden Pokupec^{1,2} and Dolores Biočina Lukenda¹

¹ University of Split, School of Medicine, Department of Stomatology, Split, Croatia

² Stomatological Polyclinic, Zagreb, Croatia

ABSTRACT

As it is known, many diseases of gastric system cause changes in the oral cavity, with either pathological findings or subjective impressions. When these changes are of pathological nature, the most common finding is recurrent aphthous stomatitis on the tongue, which emerges as a consequence of gastric diseases. Recurrent aphthous stomatitis is a disorder characterised by recurrent ulcerations limited to the oral mucosa, without any other signs of diseases. According to their clinical form, they may be big, small and hyperform. Etiology of recurrent aphthae is genetic predisposition, systemic diseases (virus, certain vitamin deficiency, gastric disorders), and autoimmune disorder and psychogenesis. The symptoms include a prodromal burning sensation and ulceration emerging within 24-48 hours as round symmetrical lesions inflicting the entire oral cavity except for palate and gingiva. Polyps ventriculi are tumours on the gastric mucosa. They can lie on a broad background or hang on the stem, and may be both individual and clustered at the same time. They are more common with elderly male population. They may have a malignant alteration. According to WHO, they have been classified as hyperplastic and neoplastic polyps. Etiology of polyps is atrophic gastritis or H. Pylori.

Key words: recurrent aphthae, polyp

Introduction

As it is known, digestion starts in the mouth and many diseases of gastric system can be manifested within the mouth. There are subjective manifestations which can appear with normal oral mucosa, such as burning and heating, change in taste and so on. In addition, there are some pathological changes in the mouth cavity such as various oral cavity inflammations and ulcerations which we call recurrent aphthae¹.

Recurrent aphthous stomatitis (RAS) is a disorder characterised by recurrent ulcerations limited to the oral mucosa. RAS affects 20% of population among certain ethnic and socio-economic groups. According to clinical characteristics of RAS, there are 3 clinical forms: small aphthae (aphthae minor), big aphthae (aphthae major) and herpetiform aphthae (aphthae herpetiformis).

Minor aphthae are present with more than 80% of patients; they are smaller than 1 cm in diameter and heal without scarring. Major aphthae are bigger than 1 cm in diameter, take longer time to heal (a month) and they leave scars, while herpetiform aphthae are considered a

distinct clinical entity which emerge in the form of small erosions affecting the underlying mucosa.

Etiologically, aphthae may be a consequence of viral infections (HSV) and heredity, allergies and hematological and immunological diseases. Baccaglini et al. established that heredity is the major factor contributing to the emergence of aphthae in the mouth, which are passed down from parents to children. Rogers and Hutton have confirmed that hematological diseases can result in the emergence of aphthae in the mouth and that their appearance can be additionally caused by deficiency in vitamins and minerals, malabsorption or celiac disease. Immunological disbalance as one of the causes of the recurrent aphthae has also been described in literature, with autoimmune diseases. Burnett and Wray have proved that increased lymphocytotoxicity and cellular mediation of citotoxicity to antibodies is also present with aphthous ulcerations.) Tarakji et al. proved that there is an increased citotoxicity of T-lymphocytes on epithelium cells of the oral mucosa. Pederson et al. proved that

CD4:CD8 lymphocytes i.e. a disorder in their interrelation can also cause a recurrent aphthous stomatitis².

Other factors influencing the emergence of recurrent aphthae are psychical stress, trauma and gastric disorders. Clinical characteristics start with a prodromal sensation of burning and heating in the mouth, and ulcerations emerge after 24–48 hours. During the initial period, RAS is localised and has a form of erythema. After that, white papules that have emerged will in the following 48–72 hours gradually ulcerate and grow. Individual ulcerations are round, symmetrical and shallow. Most frequently, they are localised on the cheek, tongue and lips.

Diagnosis of recurrent aphthae is based primarily on the clinical checkup and detailed history. Laboratory tests and biopsy are required, and so is a thorough examination with the purpose of detecting some other systemic diseases, such as gastrointestinal disorders, which have in our case caused ulcerations in the mouth³.

According to definition, polyps are knots or masses which rise above the stomach mucosa on a broad base or a stem. According to their malignant potential, there are:

1) hyperplastic polyps – they are most commonly found in stomach. They originate from foveolar epithelium, which is mostly located in the pyloric antrum. They are usually near erosions and ulcerations and are indicators of accelerated regeneration of stomach mucosa. Microscopic view will show elongated, hyperplastic foveola which may be cystically broadened. Scarce lamina propria is lymphocytic. Stole et al. has confirmed that hyperplastic form of polyps has to be checked as it may have malignant alterations.

2) adenomatous polyps – real neoplasms, rarely found in the stomach. They are more common with women older than 65. They are solitary and are usually located in antrum, where they lie on a broad base and rarely have a stem. They are made of glands which are lined with proliferative dysplastic epithelium and have a malignant potential.

3) glandular polyp or Elster's glandular cyst – a cyst which is neither hyperplastic nor neoplastic. It is a cyst with a normal stomach mucosa. It doesn't have a malignant alteration.

Etiology and pathogenesis of the emergence of polyps is with normal gastric mucosa or

precancerous lesions (intestinal neoplasm, glandular dysplasia). The cause of the emergence of polyps is unknown, but there are various factors which may lead to their emergence. These are: surroundings, infection by *H. pylori* bacterium (causes chronic gastritis, accompanied with atrophy and metaplasia, with a possibility to develop dysplasia and the emergence of cancer); nutrition (smoked, canned and salted food, deficiency in fresh fruit and vegetables) and smoking. People with immunodeficiency (AIDS and EBV) are also often affected. Lymphoma can also cause gastric polyps. They are proved that polyps smaller than 1 cm in diameter do not have a malignant alteration^{4,5}.

Clinical picture of RAS: the course of the disease is unnoticeable. The disease starts with vague and very mild disturbances and certain discomfort in the upper part of the stomach, at the age of 50–60.

Case Report

A male patient, aged 62, complains about the changes within his oral cavity. A detailed examination and history have shown that he suffers from a recurrent aphthous stomatitis. The patient was subjected to biochemical and hematological laboratory tests, which didn't show any disbalance in his blood count (iron, hemoglobin, B12), which is often the case with recurrent aphthae. Immunological testings CD4 and CD8, and HLA tissue typization have given normal findings, which is also in harmony with the emergence of recurrent aphthae. The patient was psychologically tested too. Depression and anxiety psychological tests, and the test on stress didn't show any deviation from the normal; according to the latest literature, mental diseases can also cause recurrent aphthae. The patient's medical history said that he had certain gastric problems, which he used to link to spicy food he would eat. The patient was sent to a gastroenterologist, who took the patient's history, which confirmed all the symptoms the patients had claimed to be suffering from. He was subjected to gastroenteroscopy, which proved the existence of a polyp 8 mm in diameter. *H. pylori* test was negative. Pathohistological findings showed that the polyp was hyperplastic and had foveolar epithelium which could have spread cystically, so the patient was asked to come to a control gastroscopy. After the polyp had been removed, the patient visited his oral pathologist, who found out that the patient's recurrent aphthae decreased, i.e. the patient had none at the time, so he was told to use locally-effective liquids for the regeneration of mucosa (D-panthenol sol, Vitadral gtts – Vitamin A), and B-vitamin injections in order to facilitate the regeneration of the mucosa.

Discussion and Conclusion

It is known that many diseases of the gastric system are manifested in the oral cavity, one of the reasons being the fact that mouth is the starting point of the gastric system. When it is about diseases, there is a link between gastric tract (stomach, intestines and colon) and oral cavity: heatburn, GERB, which are in the oral cavity manifested as recurrent aphthae, glossopyrosis, stomatopyrosis and the change in taste. Many authors have found connections between the emergence of gastritis, reflux and *Helicobacter pylori* and the emergence of aphthae in the oral cavity. Živković are concluded there is a connection between *Helicobacter pylori* and oral aphthae by means of PCR techniques, by which he established interrelatedness of their emerging and the additional gastritis. They are also established the interconnectedness between oral aphthae and *Helicobacter pylori*, but by means of DNA analysis in faeces and saliva. There is no litera-

ture suggesting there is a link between polyps and aphthous ulcerations. As I see it, it is all about the consequence of a long-time irritation of gastric mucosa, resulting in polyps and, consequently, aphthous ulcerations in the mouth.

Comorbidity of aphthae and polyps, as well as of other factors, indicates its importance in etiology and treatment of the disease.

REFERENCES

1. STIPETIĆ-MRAVAK M, GREENBERG MS, GLICK M, Burketova oralna medicina, 10. Izdanje. In Croat. (Medicinska naklada, Zagreb, 2006). — 2. BACGLINI L, THERIAQUE DW, SHUSTER JJ, SERRANO G, LALLA RV, *J Oral Pathol Med.*, 2012 Oct 27. DOI: 10.1111/jop.12015. — 3. TARAKJI B, BAROUDI K, KHARMA Y, *Niger Med J*, 53 (2012) 9.

DOI: 10.4103/0300-1652.9982. — 4. SLEISENGER MH, FORDTRAIN JS, *Gastrointestinal Disease*, 5th edition (WB Saunders, Philadelphia, 1993). — 5. ŽIVKOVIĆ R, *Interna medicina* (Medicinska naklada, Zagreb, 2001).

J. S. Gruden Pokupec

*Dedići 76, 10000 Zagreb, Croatia
e-mail: jspokupec@net.hr*

KOMORBIDITET REKURENTNOG AFTOZNOG STOMATITISA (RAS) I POLIPA VENTRIKULI

SAŽETAK

Poznato je da probava počinje u ustima i mnoge bolesti probavnog sustava uzrokuju promjene u usnoj šupljini bilo one patološkog nalaza ili subjektivnog osjećaja. Kod patoloških promjena najčešće susrećemo rekurentni aftozni stomatitis na jeziku kao posljedicu probavnih bolesti. Rekurentni aftozni stomatitis je poremećaj koji karakteriziraju rekurentne ulceracije ograničene na sluznicu usne šupljine bez drugih znakova bolesti. Prema kliničkom obliku dijelimo ih na: male, velike i hiperformni oblik. Etiologija rekurentnih afti je genetska predispozicija, sustavne bolesti, (virus, nedostatak određenih vitamina, probavni poremećaji) te autoimuni poremećaj i psihogeneza. Simptomi su prodromalni osjećaj pečenja a za 24–48 sata pojavljuje se ulceracija: okrugle simetrične i plitke lezije koje zahvaćaju cijelu usnu šupljinu osim nepca i gingive. Polipi ventricula su tumori na sluznici želuca. Mogu ležati na širokoj podlozi ili visjeti na peteljci pojedinačno ili više njih istodobno. U starijoj dobi češći su kod muške populacije. Imaju i malignu alteraciju. Prema WHO klasificirani su na hiperplastični i neoplastični tip polipa. Etiologija polipa je atrofični gastritis ili *H. pylori*.