

CASE REPORT



Sialosis in bulimics and surgical management

A. Abdullakutty, R. Dua, A. Kichenaradjou, D. M. Coombes

Department of Oral and Maxillofacial Surgery, Queen Victoria Hospital, East Grinstead, UK

Keywords:

Bulimia, parotidectomy, sialosis

Correspondence:

Anwer Abdullakutty, SpR/OMFS, Queen Victoria Hospital, East Grinstead, UK.
E-mail: anwer.abdulla@yahoo.co.uk

Received: 18 March 2018

Accepted: 22 April 2018

Doi: 15713/ins.jmrps.133

Abstract

Sialosis is a rare condition that can be associated with a number of underlying pathologies. It is a non-specific term used to describe an uncommon, benign, non-neoplastic enlargement of a salivary gland, usually the parotid gland; occasionally, it affects the submandibular glands and rarely, the minor salivary glands. We report a case with significant and persistent bilateral parotid and submandibular gland swelling referred to us from general dental practitioner. Thorough history and investigations concluded the diagnosis of Bulimia associated sialosis. The general dental practitioner is in a unique position to identify such patients with bulimic behavior and refer appropriately. Various options were discussed, and patient opted for bilateral superficial parotidectomy to improve aesthetics. The general dental practitioner may be the first health professional to suspect bulimia.

Introduction

Sialosis is non-inflammatory enlargement of salivary glands, most often affecting the parotid gland. It is usually associated with an underlying systemic cause such as diabetes mellitus, hypothyroidism, alcoholism, and malnutrition.^[1] It can also present as a result of the use of medications such as antihypertensives and bronchodilators.^[2]

Bulimia nervosa is an illness, which involves compulsive bingeing and subsequent self-induced vomiting or use of laxatives to avoid gaining weight.^[3] It is thought to affect 1–3% of adolescents and young women. Some people who suffer from bulimia also have anorexia nervosa.^[4] Only a small proportion of those affected are diagnosed, usually after several years of self-abuse. The exact cause of bulimia is not known, but genetics, environment, and psychological factors are thought to be contributory. Conventionally, it has principally affected women and those living in a Western and urban environment. However, the gender and socioeconomic distribution have changed.^[5]

The dental changes in most bulimics are recognizable, giving the dentist an important and advantageous role in the diagnosis and management of an otherwise poorly recognized disease.

Case Report

A 41-year-old female presented to the maxillofacial department with an 11-year history of persistent parotid and submandibular gland swelling [Figure 1]. The main concern for her referral

was facial asymmetry related to her parotid gland enlargement. Her general medical practitioner, as well as other specialist teams, had previously investigated her with no obvious cause diagnosed. A previous computed tomography scan showed diffuse enlargement of the parotid and submandibular glands. All hematological investigations including antinuclear antibodies, to exclude Sjogren's were normal. Hypokalemia was the only abnormality detected on blood tests.

Medically she was healthy but admitted to a history of bulimia.

Examination showed grossly enlarged parotid and submandibular glands. The mouth appeared well lubricated. The patient had multiple indirect restorations and showed some evidence of tooth surface loss.

A diagnosis of sialosis secondary to bulimia was made.

Several options were discussed and finally surgical management with bilateral superficial parotidectomy to improve esthetics was deemed appropriate in this case. Histopathology of the parotids confirmed non-specific sialosis [Figure 2]. The patient had an uneventful recovery, and no facial nerve weakness was observed.

Discussion

When faced with a patient who presents with bilateral parotid swellings, differential diagnosis should include:

- Mumps



Figure 1: Bilateral parotid swelling on presentation

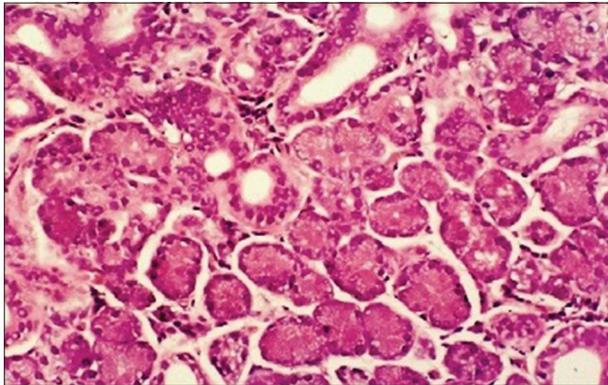


Figure 2: Histology: Microscopy showing acinar hypertrophy and cytoplasm with granules

- Sjogren's syndrome
- Salivary gland tumors (benign and malignant)
- Sarcoidosis
- Sialadenitis
- Sialosis due to diabetes mellitus, alcoholism, hypothyroidism, malnutrition, medications, and bulimia nervosa.

Often, a comprehensive history and examination can rule out some of the above conditions. Investigations of the swellings can include imaging such as an ultrasound scan with or without fine-needle aspiration, magnetic resonance imaging, and sialography. In other cases, labial salivary gland biopsy, parotid biopsy, or hematological investigations (including mumps serology, full blood count, antinuclear antibodies, liver function, thyroid function, and serum electrolytes) may be considered appropriate.^[1]

A case of bilateral sialadenitis of palatal minor salivary glands in a patient with an eating disorder has been reported by Mignogna *et al.*^[6] Parotid enlargement is thought to occur in 10–

66% of bulimics. Often, once the underlying cause of sialosis is corrected, the swelling will usually gradually resolve completely. In some cases, the sialosis will not improve. Administration of pilocarpine hydrochloride may result in a reduction in the size of parotid involvement.^[7] In the case reported in this paper, surgery was considered the most appropriate.

Bulimia sufferers may report lethargy, constipation, abdominal pain, and dysmenorrhea. They may also have calluses on the backs of their hand as a result of inducing vomiting. Hypokalemia (low serum potassium) is caused by loss of potassium through vomiting and diarrhea as well as through hypovolemia resulting in retention of sodium ions and loss of potassium and hydrogen ions by the kidneys. It is a poor screening tool for identifying individuals with bulimic behavior but if low, suggests daily purging.^[8,9] As electrolyte imbalances are potentially life-threatening, all patients with bulimia should have their fluid and electrolyte balance monitored.

Less than half of eating disorders are identified in the primary care setting. Bulimia nervosa is often successfully treated with cognitive behavioral therapy, self-help programs, interpersonal therapy, and anti-depressant medications.^[10]

Conclusion

A dentist's role in the diagnosis of systemic disease is well recognized. Oral manifestations may be the first presentation to be noted. With bulimia nervosa, the behavior exhibited by the patient is likely to be concealed; the orofacial presentations may be the only clinical sign of this potentially fatal disease. Surgical management is suitable for selected cases. Referral to the general medical practitioner is vital for appropriate medical and psychological management.

References

1. Cawson RA, O'Dell EW. Cawson's Essentials of Oral Medicine and Oral Pathology. 8th ed. New York: Elsevier, Churchill Livingstone; 2008.
2. Loria RC, Wedner HJ. Facial swelling secondary to inhaled bronchodilator abuse: Catecholamine-induced sialadenitis. *Ann Allergy* 1989;62:289-93.
3. Russell GF. Thoughts on the 25th anniversary of bulimia nervosa. *Eur Eat Disord Rev* 2004;12:139-52.
4. Fairburn CG, Beglin SJ. Studies of the epidemiology of bulimia nervosa. *Am J Psychiatry* 1990;147:401-8.
5. Palmer R. Bulimia nervosa: 25 years on. *Br J Psychiatry* 2004;185:447-8.
6. Mignogna MD, Fedele S, Lo Russo L. Anorexia/bulimia-related sialadenitis of palatal minor salivary glands. *J Oral Pathol Med* 2004;33:441-2.
7. Coleman H, Altini M, Nayler S, Richards A. Sialadenitis: A presenting sign in bulimia. *Head Neck* 1998;20:758-62.
8. Greenfield D, Mickley D, Quinlan DM, Roloff P. Hypokalemia in outpatients with eating disorders. *Am J Psychiatry* 1995;152:60-3.
9. Fairburn CG, Cooper PJ. The clinical features of bulimia nervosa. *Br J Psychiatry* 1984;144:238-46.

10. National Collaborating Centre for Mental Health. Eating Disorders: Core Interventions in the Treatment and Management of Anorexia Nervosa, Bulimia Nervosa and Related Eating Disorders. London: British Psychological Society; 2004.

How to cite this article: Abdullakutty A, Dua R, Kichenaradjou A, Coombes DM. Sialosis in bulimics and surgical management. J Med Radiol Pathol Surg 2018;5:22-24.