原文題目(出處)：	Eating Disorders Part I: Psychiatric Diagnosis and Dental Implications. The Journal of Contemporary Dental Practice, 2008;9:73-81.
原文作者姓名：	Ana Cecillia Correa Aranha / Carlos de Paula Eduardo / Taki Athanassios Cordas
通訊作者學校：	School of Medicine (Psychiatric Institute -Ambulatory Clinic for Bulimics and Eating Disorders/AMBULIM) and the School of Dentistry of University of Sao Paulo (Department of Restorative Dentistry – Special Laboratory of Lasers in Dentistry - LELO).
報告者姓名(組別)：	Int.D –黃政捷 林裕珉
報告日期：	2008.10.20

內文：

- Aim: The aim of this article is to present a review of the literature on eating disorders and related oral implications in order to provide oral healthcare professionals and psychiatrists with information that will enable them to recognize and diagnose these disorders and render appropriate treatment.
- Methods and Materials: A comprehensive review of the literature was conducted with special emphasis on the oral implications of anorexia nervosa and bulimia nervosa.
- Introduction：
  - Anorexia nervosa and bulimia nervosa are eating disorders of increasing magnitude, incidence, and prevalence causing concern to healthcare professionals. Both anorexia nervosa and bulimia nervosa are diseases characterized by perturbed eating behavior patterns, a pathological control of body weight, and disturbance in the perception of the body shape. The cause of these eating disorders is unknown, however, genetic, cultural and psychiatric factors appear to play a role in their etiology.
  - Eating disorders are a complex issue a multidisciplinary team approach to treatment involves psychiatrists, psychologists, and nutritionists. Therapy is based on the treatment of psychiatric comorbidities, family care, and treatment of clinical complications.
  - Dentists continue to face challenges associated with the accurate diagnosis and treatment of the oral consequences of the types of eating disorders such as dental erosion, xerostomia, enlargement of the parotid glands, and other oral manifestations that can appear in affected individuals.
  - Dentists see their patients at frequent intervals and may be the healthcare professionals to identify the clinical symptoms suggestive of restrictive behavior, self-induced purging, and may be the professional with whom patients feel comfortable discussing their eating disorders
- Anorexia Nervosa：
  - Intentional loss of weight due to an extreme aversion to food, strict diet in an unchecked pursuit of slenderness, obsessive fear of getting fat, a grossly distorted self-image of the body, and alterations in the menstrual cycle.
  - Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), four diagnostic criteria must be present to establish a diagnosis of anorexia nervosa：

1. Refusal to maintain body weight at or above a minimally normal weight for age and

height. Underweight is generally defined as weight less than 85% of that considered normal.
2. Intense fear of gaining weight or becoming fat.
3. Distorted perception of body weight or shape. Some patients, whose self-esteem depends
on their weight and body shape, perceive themselves as overweight.
4. Absence of at least three consecutive menstrual cycles in post-menarchal women caused by abnormally low levels of estrogen.

- Defines two subtypes of anorexia nervosa：
  - Restrictive anorexia nervosa weight loss occurs primarily through caloric restriction and excessive exercise.
  - The binge eating/purging type is characterized by regular binge eating and purging behavior
- Prevalence of Anorexia Nervosa：
  - mean age of onset is between 17.1 and 20.8 years.17,18 Most anorexics (90% to 95%) are young (under 25 years), affluent white woman of at least normal intelligence.19 Fifty-three percent of anorexics engage in restrictive constant fasting, and 47% in binge eating and purging.
  - Cultural issues are important in the etiology and prevalence studies of eating disorders.23 The quest for health and slimness is a powerful force in modern society and may reinforce the fear of fatness in patients with an eating disorder
- Bulimia Nervosa：
  - characterized by binge eating and purging behaviors. Individuals with this disorder consume large quantities of food in short periods of time and then they purge through self-induced vomiting.
  - Generally, this condition is harder to recognize because bulimic patients usually do not present signs and symptoms of the disease and most of the patients show normal body weight. This latter condition is the most distinguishable characteristic to differentiate anorexia from bulimia nervosa.26
- The criteria for bulimia nervosa is:15

1. Consumption of an amount of food that is definitely larger than most people would eat during a similar period of time or circumstances (usually within any 2-hour period).
2. A sense of lack of control over eating during the episode.
3. Recurrent use of inappropriate compensatory behaviors to prevent weight gain, such as self induced vomiting after an episode of binge eating.
4. Excessive and inappropriate emphasis on body shape and weight, making self-esteem directly associated with body shape and size

- Prevalence of Bulimia Nervosa：
  - 1 to 16% in junior and senior high school populations, 1 to 13% in college populations, and less than 1 to 13% in community samples have been reported.
  - Most bulimic patients are women in late adolescent or early adult years. Reports have found an average age of onset between 17.7 and 21 years in Caucasian women.28
- Oral Manifestations of Eating Disorders：Dental Erosion, Perimylolysis, and

Tooth Wear

- The chronicle regurgitation of gastric contents causes enamel erosion and demineralization.
- Erosion is an event in which the dental tissue is removed through a chemical process.29 This oral manifestation is the first enabling dentists to make a differential diagnosis to distinguish a case of eating disorder from other causes.
- Patients with bulimia nervosa and anorexia nervosa of the purgative subtype present a classic erosion of the lingual surfaces of maxillary teeth. This specific type of enamel erosion is termed perimylolysis and is defined as the erosion of enamel on the lingual, occlusal, and incisal surfaces of the teeth as a result of chemical and mechanical effects caused mainly by regurgitation of gastric contents and activated by the movements of the tongue. Typically, this erosion is seen on the palatal surfaces of the maxillary anterior teeth and has a smooth, glossy appearance.
- Dental erosion was predominant on the buccal and occlusal aspects of the teeth. In the same study no correlation was found between the frequency of self-induce vomiting episodes, duration, oral hygiene, and dental erosion. This was attributed to different susceptibility to dental erosion among patients and differences in the buffering capacity of saliva, flow rate, and pH have been proposed.
- Usually, dental erosion and dentin exposure are followed by pain, due to dentin hypersensitivity. Dentin hypersensitivity or cervical dentinal hypersensitivity is defined as a short and sharp pain arising from exposed dentin typically in response to chemical, thermal, tactile, or osmotic stimuli which cannot be explained as arising from other forms of old dental defects or pathologies.32-3

  It is important to differentiate between erosions caused by eating habits and those caused by habitual vomiting. Buccal or facial surface erosion may result from an over consumption of highly acidic foods.

- Dental caries:
  - Dental caries becomes a problem in individuals whose diet is rich in cariogenic food, have poor oral hygiene, and manifest salivary disturbances.
  - The only eating-disorder patients that may show significant increases in caries rates are those with a binge-eating disorder due to the consumption of high caloric and high-carbohydrate foods.
- Effects on Periodontal Tissue:
  - As most of the eating disorder patients are young, it is not surprising advanced periodontal disease is rarely diagnosed.
  - Poor oral hygiene has been reported more commonly in anorexia nervosa patients than in bulimia nervosa patients but without statistical significance.
  - This lack of interest may be caused by the more serious psychopathologic nature of anorexia nervosa.
- Traumatized Oral Mucosa Membranes and Pharynx:
  - Trauma to the mucosal membranes, pharynx, and soft palate is universally recognizable and can be observed in patients engaged in binge eating and self-induced vomiting.
  - Cases of angular cheilitis are also reported as a consequence of malnutrition and trauma.4,7 Oral candidiasis is associated with both nutritional deficiencies and salivary dysfunction.

- Effects on Salivary Glands
- Xerostomia
  - Xerostomia is a common side effect of the many psychotropic medications prescribed for eating disorders patients.3
  - Several investigators reported reduced rates of unstimulated salivary flow in patients who binge eat or induce vomiting, however, no reductions in stimulated salivary rates were observed.42 This indicates there is no alteration in the secretion of salivary glands but rather smaller quantities of saliva are secreted due to the ingested medicaments.42
- Enlargement of the Parotid Gland
  - Patients with eating disorders frequently have enlarged parotid glands. Generally, this finding is manifested in individuals who purge.
  - In the early stages of the eating disorder gland enlargement may appear and disappear; but as the eating disorder progresses, the swelling becomes more persistent.
  - The etiology of salivary gland enlargement is uncertain.
- Results:
  - Currently, available knowledge that correlates eating disorders with dental implications is supported by data derived from well-conducted psychiatric and psychological literature. However, little is known about the aspects of oral medicine concerned with the subject. Dental erosion, xerostomia, enlargement of the parotid gland, and other dental implications might be present in individuals with eating disorders.
- Conclusions:
  - Eating disorders are a serious concern with regard to the oral health of patients. They represent a clinical challenge to dental professionals because of their unique psychological, medical, nutritional, and dental patterns as well as their unique characteristics. However, there is a general lack of awareness of the fundamental importance of the dentist's role in the multidisciplinary treatment of affected patients.

題號	題目
1	最常出現perimylolysis的牙齒部位是在？ (A) Proximal (B) Occlusal (C) Buccal (D) palatal
答案(D)	出處：
題號	題目
2	Who can facilitate a favorable multidisciplinary therapeutic outcome of these patients by knowing the cause, symptoms, and manifestations of eating disorders and making critical referral of these patients to appropriate medical colleagues for treatment？
	(A) Psychologist (B) Nutritionist (C) Dentist (D) Psychiatrist
答案(C)	出處：