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Review Article

Management of eating and feeding disorders

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ABSTRACT

The World Health Organization and the American Psychiatric Association have identified eating disorders. This is the most common disease in the world. According to a systematic review, the prevalence of eating and feeding disorders was 3.5% between 2000 and 2006 and increased between 2013 and 2017 to 7.8 percent. Approximately 28.8 million people will suffer from this disease in USA. Eating and feeding disorders can be lifelong issue. These disorders are more common among women. Anorexia nervosa, effects on systemic as well as general oral and dental health.

1. Introduction

Eating and feeding disorders are very common among young women. They may have bulimia nervosa or anorexia nervosa. Patients with anorexia nervosa are often underweight with a body mass index of less than 18 kg/m^2 to very thin.[1] According to WHO and the American Psychiatric Association has identified eating disorders.[2] People with this syndrome have drastically reduced their calorie intake and are deficient of calories. the prevalence of eating and feeding disorders was 3.5% in between 2000 to 2006 and increased between 2013 to 2017 to 7.8 percent.[3] People may exercise excessively to control their weight and may have a strong fear of gaining weight or take strong laxatives.[4] American Psychiatric Association diagnostic criteria for bulimia nervosa require binge eating and purging at least once a week for at least 3 months.[5] More than 50% of patients with anorexia nervosa also engage in bulimia nervosa behavior with self-induced vomiting and atypical bulimia nervosa and severe caloric restriction and aggressive exercise. The aim of this article is to correlate eating and feeding disorders with risk factors and systemic diseases.

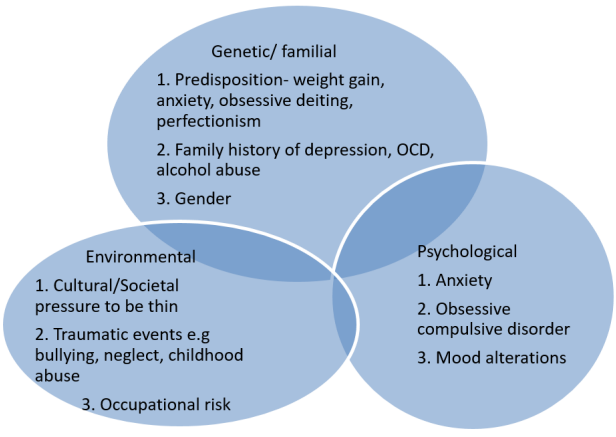

Figure 1:

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2. Risk Factors

Risk factors for eating and feeding disorders are psychological, genetic and environmental factors.[6] Genetic factors include neuroticism, perfectionism, anxiety, weight gain, and compulsive diets.[7–9] Bulimia has a heritability of 0.60.[6] The risk of anorexia nervosa in women increases 11 times if a relative has anorexia nervosa. Environmental factors are social pressure to thin, especially for adolescent and young women, family factors are history of obsessive-compulsive disorder, depression and alcohol abuse.[10] Weight management is an occupational risk factor for figure skaters, gymnasts, models, ballerinas, and athletes who require lean body mass.[11]

3. Effects on Systemic Health

Death and severe complications can occur with bulimia nervosa and anorexia nervosa. Patients who are very underweight may suffer from endocrine dysfunction, cardiovascular disease, metabolism etc. Patients with severe anorexia nervosa and malnutrition have a very low body mass index with an average lifetime of 10.5 kg/$m^2$and 45% of people have the possibility of premature death[12] experience a high mortality rate in 4 individuals with eating and feeding disorders.[13] Gastrointestinal disorders in anorexia nervosa include nausea, dysphagia, delayed gastric emptying, flatulence and gastric perforation. They are at risk of infertility, multiple organ failure and brain damage.[4] People suffer from fine and pigmented hair called lanugo on the body and face, dry and yellow skin, severe acne, brittle nails and cyanotic blue color.[14] Depression, high blood pressure, ulcers, diabetes, constipation, anxiety, physical and mental illnesses occur in patients with anorexia nervosa or bulimia nervosa.

Thinning hair and baldness are also symptoms. The patient can place their hands on the arm of the dental chair and the dentist can observe Russell's signs. For example, calluses on the knuckles or the back of the hand, which are usually caused by self-induced vomiting.[3]

Patients with anorexia nervosa may have gastrointestinal disorders, cardiovascular disease, kidney disease, immunosuppression, osteoporosis/osteoporosis, skin changes, brain damage, metabolic, endocrine dysfunction, fatty liver, blood disorders, psychiatric disorders, dysmenorrhea, lanugo, lethargy, thyroid abnormalities, multiple organ failure, diabetes mellitus, skin changes, suicidal thoughts and suicide.

Patients with bulimia nervosa have severe electrolyte disturbances. Self-induced vomiting is done by sticking a finger in the throat or using ipecac syrup, an accumulated toxin that can cause cardiovascular complications.[15] Frequent vomiting can lead to larynx damage, hoarseness and acid reflux. Esophageal rupture or malignant tumors, pancreatitis, metabolic alkalosis, hypokalemia, and in severe cases, cardiac arrhythmia, epistaxis, subconjunctival bleeding[16] and sialadenitis.[17] Long-term use of laxatives causes low intestinal tract complications. Bulimia nervosa and anorexia nervosa are at risk for promiscuity, substance abuse and theft can be committed.

4. Effects of Repeated Vomiting

Effects of repeated vomiting include dysphagia, indigestion, severe electrolyte disturbances, possible esophageal rupture/malignancy, pancreatitis, cardiac arrhythmia, bilateral parotid hypertrophy, subconjunctival bleeding, acid reflux, damage to larynx metabolism and nose bleeding

5. Oral Symptoms

Anorexia nervosa and bulimia nervosa have oral manifestations in the tissues and around the mouth.

6. Hard Tooth Tissue

In bulimia nervosa and anorexia nervosa, tooth erosion occurs. Patients with eating and feeding disorders are five times more at risk of tooth erosion as compared to the general population. Exposure to stomach acid from self-induced vomiting can damage the palatal surface of maxillary anterior teeth known as perimolysis. This condition results in loss of tooth structure, smooth vitreous surfaces, and notches along the anterior incisal edge. The vertical dimension is lost in prolonged self-induced vomiting. 70% of patients suffer tooth erosion due to self-induced vomiting. Erosion reduces the depth of the enamel and shallows the dentin, creating the appearance of sealants and restorations. Low pH removes the smear layer over the dentin, which opens the dentinal tubules resulting in dentinal hypersensitivity.

7. Sialadenitis

Sialadenitis/ parotid gland enlargement is a common bilateral manifestation in patients with self-induced vomiting.

8. Mucosal Manifestations Around the Mouth

Oral mucosal manifestations are common in bulimia nervosa and anorexia nervosa. Palate and mucosal trauma associated with carotenoid overdose.[18] Self-induced vomiting is associated with oral mucositis, oral ulcers, angular cheilitis, erythema of the lips, and oral candidiasis. Nutritional deficiencies include glossodynia, oral candidiasis, atrophic glossitis and oral ulcers.[19] Emotional distress reduces the interest in oral health and nutritional deficiencies, blood disorders can predispose to periodontal disease.

9. Oral Symptoms of Anorexia Nervosa and Bulimia Nervosa

Oral symptoms of bulimia nervosa and anorexia nervosa include periodontal disease, tooth erosion, dentin hypersensitivity, tooth decay, sialadenitis, palatal mucosal trauma, oral candidiasis, mouth ulcers, cheilitis, erythema of the lips, bleeding gums, cheek bite, yellow-orange discoloration of the soft palate, glossodynia and atrophic glossitis.

10. Discussion

Anorexia nervosa is an ingesting ailment which can negatively affect patient's bodily, emotional, and behavioral fitness. If it is left untreated, anorexia can result in lifestyles-threatening health problems. Anorexia nervosa is a psychiatric disease where in patients restrict their meals intake relative to their strength necessities through eating less, workout greater, and/or purging food through laxatives and vomiting not withstanding being severely underweight. Anorexia sickness particularly affects females among 14 and 18 years of age. A person with anorexia has such an extreme worry of becoming fat that she hardly ever eats something and turns into dangerously skinny. They might also weigh themselves repeatedly even if dangerously underweight, they may see themselves as overweight. There are subtypes of anorexia nervosa: a "restrictive" subtype and a "binge-purge" subtype.

If a dentist notices the signs of an eating and feeding disorder, refer the patient to the psychiatrist or physician for a right diagnosis. Dentists have the opportunity to identify patients with anorexia nervosa or bulimia nervosa and refer them in time for diagnosis and treatment. Genetic counseling is a part of treatment. If the underlying cause is psychological, then patient should be referred to Psychiatrist.

11. Conclusion

Bulimia nervosa and anorexia nervosa are increasing in women. If genetics play an important role in bulimia nervosa and anorexia nervosa, the risk factors are well known. Dentists can identify and refer the patients suspected of anorexia nervosa or bulimia nervosa to the Psychiatrist. Dentists can treat oral diseases and provide guidance and advice to patients. Psychiatrist can treat the patients accordingly.

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13. Conflict of Interest

None.

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