Children with Eating Disorders

Anorexia nervosa is a syndrome characterized by an excessive fear of becoming overweight, body image disturbance, significant weight loss, refusal to maintain minimal normal weight, and amenorrhea. This disorder occurs most frequently in adolescent females. (ICD 9 code 307.1)

Bulimia nervosa is an eating disorder that involves eating massive quantities of food (binge eating) and then eliminating food by inappropriate compensatory methods to prevent weight gain, such as self induced vomiting or strong laxatives. (ICD 9 code 307.51)

Prevalence

- Anorexia 1% and >40% are also bulimic
- Bulimia 2-3%
- More common in adolescents than adults, and more common in girls

Manifestations

Clinical of anorexia nervosa

- Malnutrition and vitamin deficiencies
- Obsessive and/or self-injurious behaviors
- Abnormal blood counts
- Irregular heart rhythms
- Fatigue, dizziness or fainting
- Low blood pressure
- Amenorrhea
- Dry skin and brittle nails
- Dehydration
- Bone loss
- Others: increased body hair, thin appearance, constipation

Clinical of bulimia nervosa

- Irregular heartbeat
- Dehydration, dry skin
- Fatigue
- Bloating
- Abnormal bowel functioning
- Sores, scars, or calluses on the knuckles or hands

Oral

- Increased risk of dental caries. Many children or individuals with eating disorders use sweetened beverages and candy for energy and to placate the feeling of hunger.
- Severe dental erosion from vomiting causing sensitivity (predominantly palatal/lingual of anterior teeth)
- Increased risk of periodontal disease, gingival bleeding and delayed healing
- Mucosal lesions caused by direct exposure to acid or frictional trauma from item used to induce vomiting
- Oral burning sensation
- Osteoporosis including alveolar bone loss (anorexia)
- Xerostomia
- Altered taste sensation
- Sialadenitis, with enlargement of Parotids and minor salivary glands

Other Potential Disorders/Concerns

- Anxiety
- Depression

Management . . .

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Medication SYMPTOM	MEDICATION	SIDE EFFECTS
Aggressive Behaviors	Antipsychotics (Olanzapine)	Xerostomia, sialorrhea, dysphagia, stomatitis, gingivitis, tongue edema, glossitis
Repetitive Behaviors	<i>Antidepressants</i> (Fluoxetine and Sertraline)	Xerostomia, dysphagia, sialadenitis, dysgeusia, stomatitis, gingivitis, glossitis, discolored tongue, bruxism

Behavioral

Discussing eating disorder with patient.

Guidance:

- The dental professional may be the first to observe signs of an eating disorder. Effective, non-judgmental communication is critical.
- Establish non-threatening communication with the patient to discuss suspicion of eating disorder. Choose an appropriate time (allow sufficient time to discuss concerns) and location (without other patients nearby) to increase comfort of patient.
- Begin slowly and tell the patient about the oral changes that you have noticed. Suggest possible causes of the changes and introduce the possibility of an eating disorder.
- Ask patient questions about eating habits and body image, if patient allows. Be supportive and calm.
- Be aware of resources in the community for referral if patient admits to an eating disorder. Encourage patient to seek professional help.

Dental Treatment and Prevention

- Monitor dental erosion (may not be seen in restrictive anorexia) and mucosal lesions regularly. Be aware that it may take 6 months to 2 years for dental erosion to be visible after self-induced vomiting begins.
- Consider providing patient with custom-made trays with 1.1% neutral fluoride gel, to be used for 5 minutes daily to increase remineralization.
- Minimize use of abrasive materials during dental treatment.
- Plan complex restorative procedures after vomiting cycle has stopped or lost weight is regained.
- Consider treating dentin hypersensitivity with potassium oxalates, strontium chlorate, fluoride varnish, and desensitizing toothpastes.
- Instruct patient not to brush teeth within 1 hour after vomiting, but to rinse mouth with water to reduce acidity and subsequent erosion. Consider rinsing with 0.5% fluoride daily.
- Instruct patient in use of a tongue cleaner after vomiting.
- Educate patient about importance of healthy eating and encourage consumption of non-acidic foods and beverages. Drinking carbonated/acidic drinks with a straw will direct away from teeth.
- Encourage bulimic patient to consume sugarless gum with xylitol to promote salivary flow.

Children with Eating Disorders continued

Look for signs of physical abuse during the examination. Note findings in chart and report any suspected abuse to Child Protective Services, as required by law.

Additional information: Special Needs Fact Sheets for Providers and Caregivers

References

- Little, JW. (2002) Eating disorders: dental implications. *Oral Surg, Oral Med, Oral Patho, Radio, Endods*, 93(2): 138-143.
- Burkhart, N., Roberts, M., Alexander, M., Dodds, A. (2005) Communicating effectively with patients suspected of having bulimia nervosa. *J Am Dent Assoc*, 136(8): 1130-1137.
- Lo Russo, L., Campisi, G., Di Fede, O., Di Liberto, C., Panzarella, V., Lo Muzio, L. (2008) Oral manifestations of eating disorders: a critical review. *Oral Disease*, 14(6): 479-484.

Additional Resources

- NIH Institute for Eating Disorders
- Special Care: an Oral Health Professionals Guide to Serving Young Children with Special Health Care Needs
- Bright Futures Oral Health Pocket Guide
- American Academy of Pediatric Dentistry: 2011–2012 Definitions, Oral Health Policies and Clinical Guidelines
- MCH Resource Center
- ASTDD-Special Needs
- Block Oral Disease, MA
- NOHIC-NIDCR publications
- Free of charge CDE courses: MCH Oral Health CDE (4 CDE hours); NIDCR CDE (2 CDE hours)



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