GI DISORDERS/RADIATION PROCTITIS

Psychologic Evaluation for Bariatric Surgery

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Background: eligible candidates have body mass index (BMI) ≥35 plus 2 risk factors (sleep apnea, hyperlipidemia, hypertension, or type 2 diabetes), or BMI >40

Psychologic assessment: questions in test packet — patient’s reasons for seeking surgery; events that prompted desire for surgery; mood and stress level; presence of eating disorder in addition to obesity; patient’s understanding of, and ability to fulfill, perioperative and postoperative requirements; perceived barriers to weight loss; weight-loss goal; perceived benefits of surgery and weight loss; questions clarify importance of change and patient’s motivation; delay sometimes indicated to improve patient’s motivation and thereby increase likelihood of good outcome; includes review of perceived advantages and disadvantages associated with change; determining family history of obesity important in predicting likely level of support

Dieting history: patient who has not tried dieting is poor candidate for surgery; review of past dieting experience can provide important information about perceived weight-loss barriers; patient also asked about history of maladaptive eating and dieting behaviors, including purging and compensatory behaviors and maladaptive drinking (assess patient’s knowledge of nutrition; some people unaware of caloric content of, e.g., juices, soft drinks); speaker asks for 24-hr diary of food intake, portion size, and physical activity

Evaluation of mental status: Mini-Mental State Examination performed; 28% to 42% of candidates for bariatric surgery have psychiatric history; 22% to 24% have Axis II disorder; substance abuse contraindicates bariatric surgery; cigarette smoking also usually contraindicates surgery; psychodynamic concerns also addressed (because dramatic weight loss may bring up issues over body image, past sexual trauma, or relationships)

Eating disorders: binge eating disorder present in 8% to 10% of obese individuals (may still qualify for surgery, but most likely Roux-en-Y gastric bypass, rather than adjustable gastric banding [Lap Band, Realize Band]); surgery not contraindicated with Axis I conditions if patient receiving professional care and not suicidal

Other common psychiatric disorders: maladaptive health behaviors affecting morbid obesity (most common diagnosis given by speaker); mood, anxiety, and somatoform disorders; should all be addressed before surgery; night eating syndrome — seen in 40% of bariatric surgery patients

Patterns of physical activity and exercise: determine barriers to exercise, including concerns over safety and lack of emotional support

Stressors: living arrangements and family environment; financial stressors

Treatment: Foster and colleagues surveyed >600 primary care physicians in 2003 about attitudes toward obesity; participants rated physical inactivity as most important cause of obesity; 50% described obese patients as awkward, unattractive, ugly, or noncompliant; 50% also admitted not feeling competent prescribing weight-loss programs; speaker’s advice — do not communicate judgmental attitude to patients; ask about weight history and adverse effects of weight problems; emphasize health risks and potential improvement with lifestyle changes (actual weight secondary); acknowledge patient’s concerns about safety of physical activity; examine own attitudes about obesity and obese people (should include recognition that obesity is chronic disease and that treatment compliance requires major changes in lifestyle); keep expectations realistic; encourage patients to keep appointments even if goals not met

Choice of bariatric surgery: adjustable gastric banding poor choice for binge eaters; ensure absence of serious psychiatric and cognitive problems (e.g., mental retardation, suicidal ideation, substance abuse) and cigarette smoking; eating disorders represent relative contraindication, depending on type and severity; ideal candidate — has history of failed attempts at weight loss; highly motivated; has some familiarity with procedure and after-care requirements; understands risks and benefits; has adequate support system, limited psychosocial stressors, and realistic expectations; capable of adhering to dietary regimen after surgery; BMI of 40 to 45; age 21 to 40 yr (procedures generally contraindicated in individuals >65 yr of age)

Predictors of success: married; supportive family environment and adequate social support; absence of psychiatric or substance abuse history; limited financial stressors; recognition of need (and motivation) for lifestyle changes; interest in individually tailored postsurgical treatment and follow-up; compliance with medication

Educational Objectives

The goals of this program are to improve the psychologic evaluation of candidates for bariatric surgery, and the management of radiation proctitis and oropharyngeal dysphagia. After hearing and assimilating this program, the clinician will be better able to:

1. Identify patient factors associated with a positive response to bariatric surgery.
2. Recognize which patients are poor candidates for bariatric surgery.
3. Determine whether a patient with radiation proctitis is a good candidate for preservation of the rectum.
4. Use nonsurgical strategies for the treatment of radiation proctitis.
5. Avoid surgery through the use of high-resolution manometry in patients with dysphagia.

Faculty Disclosure

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Medical changes after bariatric surgery: overall loss of 61.2% of excess weight, 14.2% decrease in BMI, and absolute weight reduction of ≈40 kg; improved glycemic control in diabetic patients; prevents diabetes in 99% to 100% of patients with impaired glucose tolerance; diabetes clinically resolves in 80% to 90% of patients

Psychologic changes: improved quality of life noted in several studies (unrelated to type of surgery or to postoperative complications); associated with significant improvements in depression and self-esteem, as well as body image; fewer obesity-related psychosocial problems; better occupational functioning; more satisfying sex life; unrealistic expectations, medical complications, or continuing health problems may contribute to poor psychologic functioning after surgery

Special considerations for specific populations: a) older adults — treatment should be guided by, eg, evaluation of potential benefits, reduction of risk for cardiovascular events; cultural minorities — be sensitive to differences in language and customs; adolescents — long-term complications mostly nutritional; risk particularly high for deficiencies of iron, vitamins B₁₂ and D, as well as thiamine; lifelong vitamin and mineral supplementation imperative; assess bone age to determine skeletal maturity; try noninvasive approaches first; have pediatric psychologist or psychiatrist screen for psychiatric problems

Psychodynamic issues and concerns: address postoperative depression or anxiety; psychopharmacologic treatment may be necessary; consider protective or subjective benefits of obesity that may influence weight loss

Radiation Proctitis

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Introduction: acute symptoms that develop during treatment bear no relationship to severity of later effects; tolerance dose for ilium 45 to 65 Gy (45-60 Gy for rectum); overall incidence of injury ≥25% at 5 yr posttreatment; classic injury is microvascular; fast obliteration of arterioles results in necrosis and stricture; vascular; fast obliteration leads to fibrosis and stricture; of patients developing chronic injuries, virtually all patients experience some alteration in gastrointestinal (GI) function; of patients developing chronic injuries, 20% require surgical intervention (most within 6 mo to 2 yr after completion of radiation therapy)

Rectal injuries: more common than small bowel injuries (ie, unless rectum cannot be displaced from pelvic radiation field; is in close proximity to treated area); types of injury include hemorrhagic proctitis, rectovaginal fistula, stricture, and ulceration (vary with type of radiation therapy delivered); risk for acute toxicity increases when chemotherapy added to radiation therapy; radiation effects on sphincter function difficult to separate from effects of proctectomy (level of rectal anastomosis must be considered); rectal injuries associated with frequency, clustering of stools, soiling during night, urgency, and need to wear incontinence pads; most important take-home message — rule out recurrent cancer when evaluating potential radiation injury

Endoscopic appearance: granular mucosa (sometimes with telangiectatic vessels); external-beam radiation therapy associated with diffuse rectal involvement; more focused techniques (eg, brachytherapy, intracavitary radiation therapy) produce isolated areas of ulceration or bleeding

Preservation of rectum: depends on nature of complication and patient-related factors, such as age, comorbidities, rectal elasticity (possibly determined via manometry), and level of continence; “heroic attempts” may be accompanied by many complications (colostomy best option for some patients)

Chronic hemorrhagic proctitis: rule out recurrence of cancer (examine patient under anesthesia, if necessary); colostomy may be best choice for frail patient with many comorbidities

Medical treatment of irradiated rectum: options include enemas with butyrate, steroids, and short-chain fatty acids, vitamin therapy, and 4% formalin; hyperbaric oxygen promising but limited by availability and expense; vitamin A associated with good results (stimulates wound healing and increases secretion of collagen by fibroblasts); intrarectal formalin — may be administered through proctoscope with air insufflation, or applied with cotton swab; one treatment usually sufficient (patients taking clopidogrel [Plavix] or aspirin require additional treatment); delivered through well-lubricated rigid proctoscope to avoid stretching and fissuring anus; hyperbaric oxygen — reduces tissue ischemia, promotes angiogenesis, and fights infection; may produce (and contraindicated by) claustrophobia; also associated with pulmonary and neurologic toxicity; patients require multiple daily 1-hr treatments; expensive; argon plasma coagulation — shows promise; used as first-line treatment or after failure with formalin

Reconstruction: patient must be suitable surgical candidate; assess for recurrent cancer and rectal viability; consider ureteral stents to help with intraoperative management; mark patient for stoma preoperatively; bowel preparation and prophylaxis for deep venous thrombosis indicated (operation can be lengthy); consider resection of noncompliant rectum; also consider adding colonic reservoir; if resecting, mobilize splenic flexure, ligate left colic artery and inferior mesenteric vein for reach; consider omental interposition if omentum present; proximal limb of anastomosis should be out of irradiated field for maximal healing; in male pelvis, identify hypogastric plexus; excessively large reservoir may cause problems with evacuation; consider coloplasty

Other considerations: irradiated rectum has cancer latency period of 10 to 20 yr (indicates surveillance endoscopy)

Clinical Utility of High-Resolution Manometry

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Oropharyngeal dysphagia: difficulty with oral or pharyngeal phase of swallowing; problem may be neuromuscular or anatomic; symptoms may be referred from esophagus

Evaluation: videofluoroscopy — permits definition of anatomy and pathophysiologic mechanisms underlying problem; also allows for short-term interventions; manometry — identifies underlying pathophysiologic, but less amenable to performance of compensatory measures (associated with discomfort for patient); good for measuring pressure and coordination of pharynx and upper esophageal sphincter (UES); evaluation includes timing and presence of basal tone and pharyngeal contractions, strength and coordination of UES with pharynx, and measurement of residual and intrabolus pressures; helps guide treatment

High-resolution manometry (HRM): permits observation of pharyngeal activity relative to esophagus; gives better idea of swallowing capability; HRM speeds and facilitates interpretation by producing 3-dimensional color-coded images

Uses: evaluation of solid-food dysphagia — finding of marked esophageal spasm can be treated medically with calcium channel blockers rather than surgery; evaluation of dysphagia after cervical surgery — allows determination of need for removal of titanium plates; cricopharyngeal bars — become common finding with aging; often asymptomatic; many clinicians believe surgery indicated if ≥50% of esophageal lumen obliterated (not true; HRM studies have shown many patients have normal esophageal and pharyngeal pressure
waves); assume bar pathologic and producing symptoms if patient has high intrabolus pressure (treat aggressively)
Unpublished study by speaker and colleagues: HRM identified esophageal and pharyngeal abnormalities not detected by videofluoroscopy; altered management in $\approx 25\%$ of cases; suggests HRM shows promise in management of patients with oropharyngeal dysphagia

Conclusions: HRM has enhanced understanding of pathophysiology of oropharyngeal dysphagia, particularly in esophagus; exact interpretation still difficult; has reduced number of oropharyngeal, tongue-base, and cricopharyngeal surgical procedures performed; increases likelihood of good surgical outcome

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Review Educational Objectives on page 1 5 minutes
Take pretest 10 minutes
Listen to audio program 60 minutes
Review written summary and suggested readings 35 minutes
Take posttest 10 minutes
GI Disorders/Radiation Proctitis

1. Which of the following patients would not be considered a candidate for bariatric surgery?
   (A) 25-yr-old man with body mass index (BMI) of 37, type 2 diabetes, and sleep apnea
   (B) 35-yr-old woman with BMI of 41
   (C) 50-yr-old woman with BMI of 38 and no comorbidities
   (D) 45-yr-old man with hypertension and BMI of 42

2. A history of binge eating is not an absolute contraindication to bariatric surgery.
   (A) True
   (B) False

3. According to a survey of primary care physicians performed in 2003, the majority believed that ______ is the most important cause of obesity.
   (A) Binge eating
   (B) Lack of nutritional knowledge
   (C) Metabolic derangement
   (D) Physical inactivity

4. Attributes of the ideal candidate for bariatric surgery include:
   1. No history of failed attempts at weight loss
   2. Familiarity with the procedure and self-care requirements
   3. BMI of 35 to 40
   4. Supportive home and family environment
   (A) 1,2,3,4
   (B) 1,2,3
   (C) 1,3
   (D) 2,4

5. The long-term complications experienced by adolescent patients who undergo bariatric surgery are more likely to be psychologic than nutritional in nature.
   (A) True
   (B) False

6. All the following statements about the side effects of radiation therapy are accurate, except:
   (A) Acute symptoms that develop during treatment are unrelated to the severity of later symptoms
   (B) Necrosis and ulceration are associated with slow obliteration of arterioles
   (C) Virtually all patients experience gastrointestinal complications
   (D) Injuries are classically microvascular in nature

7. Choose the correct statement(s) about rectal radiation injuries.
   (A) First priority in evaluation is to rule out recurrent cancer
   (B) Effects on sphincter function distinct from those associated with proctectomy
   (C) Brachytherapy is associated with diffuse rectal injury
   (D) All the above

8. Choose the incorrect statement about treatment of radiation proctitis with hyperbaric oxygen.
   (A) Reduces tissue ischemia
   (B) Promotes angiogenesis
   (C) One treatment usually sufficient
   (D) Helps fight infection

9. The irradiated rectum has a cancer latency period of:
   (A) 5 to 10 yr
   (B) 10 to 20 yr
   (C) 20 to 30 yr
   (D) 30 to 40 yr

10. Compared to standard manometry, the major advantage of high-resolution manometry is that it:
    (A) Is easier on the patient
    (B) Permits therapeutic interventions
    (C) Improves management by providing 3-dimensional color-coded images
    (D) Takes less time to perform

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