MEDICAL MANAGEMENT OF EATING DISORDERS

Dr. Lynda Molleken, BSc (Pharm), MD, FRCPC
Dr. Kalam Sutandar, MD, MSc, FRCPC

ILLNESS

EATING DISORDERS

- Eating disorders (EDs) are mental illnesses where the symptoms associated have a psychological and physiological impact
- Pre-occupied with food intake, body weight, and body image
- Psychiatric comorbidity is high: depression and anxiety, PTSD, substance abuse
- Different types of EDs exist, each with implications for treatment and mortality

MORTALITY

- Highest mortality of any mental illness
- AN 5-20% (1/6-1/3 suicide)
- BN as high as 4%
- OSFED 5%

ANOREXIA NERVOSA

- Significantly low weight due to restriction
  - Mild: BMI ≥ 17 kg/m^2,
  - Moderate: 16-17 kg/m^2
  - Severe: 15-16 severe kg/m^2
  - Extreme: ≤ 15 kg/m^2
- Intense fear of weight gain or fat
- Body image disturbance or denial of illness
- Lifetime prevalence: 0.9% women, 0.3% men

ANOREXIA SUBTYPES

RESTRICTING

- low food intake
- often exercise
- “orthorexia”

BINGE/PURGE

- binge
- vomit
- laxatives
- diuretics
- underdose insulin in DM

BULIMIA NERVOSA

- Binge-eating and compensatory behaviours at least once a week for 3 months
- Self-esteem influenced by weight and shape
- Restrained eating, exercise, vomiting, laxative, diuretic, diet pill, ipecac, thyroid medication abuse
- Lifetime prevalence:1.5% women, 0.5% men

OTHER SPECIFIED FEEDING or EATING DISORDER

Examples:

- Atypical AN (despite significant weight loss, weight is within or above normal range)
- BN of low frequency and/or limited duration
- BED of low frequency and/or limited duration
- Purging disorder (purging without binge eating)
- Night eating syndrome

BINGE EATING DISORDER

- Recurrent bingeing 1x/week x 3 mo
- 3 or more:
  - Eating more rapidly than normal
  - Eating until uncomfortably full
  - Eating large amounts when not hungry
  - Eating alone (shame)
  - Disgusted, depressed or guilty
- No compensatory behaviours

ETIOLOGY OF AN AND BN

- Family and twin studies suggest a strong genetic component (>50% heritability)

Some risk factors:

- Family history of obesity, affective disorder, substance abuse, and obsessive-compulsive disorder
- Early attachment and developmental difficulties
- Perfectionism, obsessionality, excessive compliance and low self esteem
- Female gender with exposure to Western thin ideals
- Excessive weight concern in the formative developmental years
- Adverse life experiences including abuse.

ETIOLOGY OF AN AND BN

Frequent precipitating factors:

- Separation and losses
- Disruptions of family homeostasis
- New environmental demands
- Direct threats of loss of self-esteem and personal illness

ETIOLOGY OF AN AND BN

Factors that sustain the illness:

- Psychological effects of starvation
- Distorted body perceptions
- Cognitive factors related to the disorder
- Personality features of the individual
- Continued cultural emphasis on the ideal of thinness

COMORBIDITY – AN

Over half have a comorbid psychiatric disorder

- Mood Disorders 42%
- Social phobia 25%
- Impulse control disorders 31%
- Substance use disorders 27%
- Avoidant, obsessive-compulsive personality traits

(Hudson et al., 2007)

COMORBIDITY – BN

Almost all report comorbid psychiatric disorders

- Mood disorders 71%
- PTSD 45%
- Substance abuse 37%
- Social phobia 41%
- Impulse control disorders 64%
- Borderline, avoidant personality traits

(Hudson et al., 2007)

AN: PROGNOSIS/OUTCOME

- 50% good
- 20% intermediate
- 20% poor
- 5-20% mortality

BN: PROGNOSIS/OUTCOME

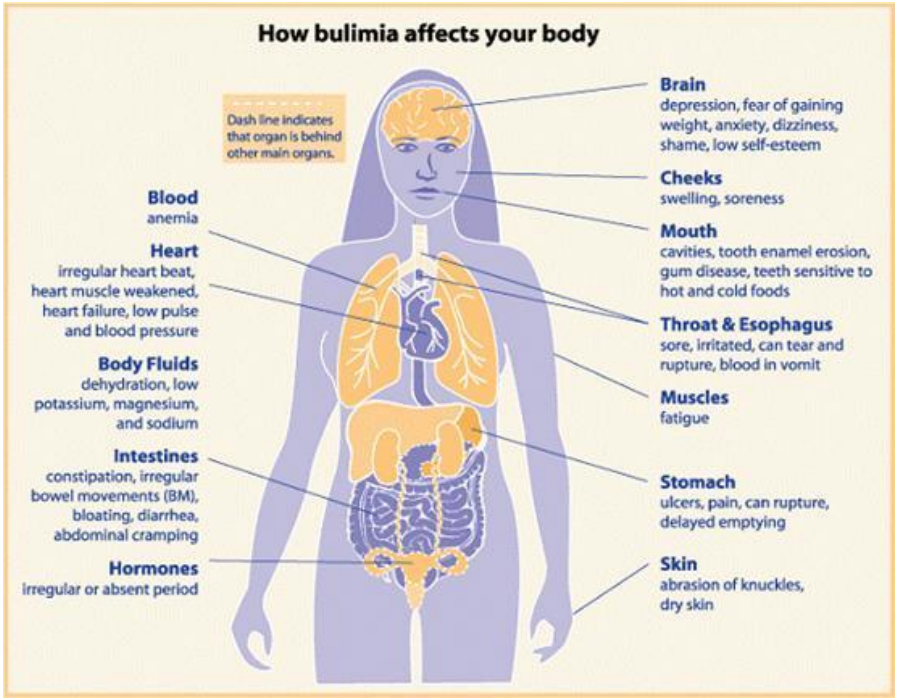
- 60% good
- 25-30% intermediate
- 10% poor
- 1-3 % mortality

Assessment

- Consider it in all females and males
- ASK
- Check menstrual status
- Weight changes, dieting
- Fertility problems

Assessment

- GI: stomachache, constipation
- Exercise (frequent injuries, stress fractures)
- Co-morbidity (depression, anxiety, PTSD, alcohol, drugs)
- Lack of progress with other MH problems


How bulimia affects your body
Dash line indicates that organ is behind other main organs.
Brain
depression, fear of gaining weight, anxiety, dizziness, shame, low self-esteem
Cheeks
swelling, soreness
Mouth
cavities, tooth enamel erosion, gum disease, teeth sensitive to hot and cold foods
Throat & Esophagus
sore, irritated, can tear and rupture, blood in vomit
Muscles
fatigue
Stomach
ulcers, pain, can rupture, delayed emptying
Skin
abrasion of knuckles, dry skin
Blood
anemia
Heart
irregular heart beat, heart muscle weakened, heart failure, low pulse and blood pressure
Body Fluids
dehydration, low potassium, magnesium, and sodium
Intestines
constipation, irregular bowel movements (BM), bloating, diarrhea, abdominal cramping
Hormones
irregular or absent period

PHYSICAL EXAM

- Full physical exam
- Height and weight, orthostatic vitals
- Physical signs – weight, Russell's sign, enlarged parotids, lanugo, dental problems

INVESTIGATIONS

- Labs: CBC, glucose, Na, K, HCO_3, Cl, BUN, Cr, Ca, Mg, PO_4, LFTS, amylase
- Albumin
- Ferritin, vit B12
- TSH
- EKG
- Bone density test

PRINCIPLES OF TREATMENT

- Weight restoration if underweight (food is medicine)
- Normalizing eating (non-dieting)
- Symptom cessation
- Psychotherapy: CBT-E, DBT, FBT
- Addressing co-morbidities
- Insight into underlying factors and function of the eating disorder, while focusing on behavioural change

THERAPY

- Prepare for change (MI)
- Making behavioural change (CBT)
  - Normalize eating (stop restriction cycle)
  - Decrease bingeing and vomiting etc.
- Learning emotion regulation (DBT)
- Therapy for underlying issues
  - Low self esteem, trauma, maturity fears

Intensive Treatment

- Indications for:
  - Admission for medical stabilization
  - Voluntary inpatient eating disorder treatment
  - Residential (eg: Bellwood)
  - Day treatment
- Bellwood EDP criteria

MANAGEMENT CONCERNS

Safety

- Medical: mostly in the beginning of treatment
- Psychiatric: suicidality, self harm, dissociation

EMERGENCY INPATIENT MEDICAL MANAGEMENT

- Rapid weight loss of >25% of body weight, or BMI < 12 kg/m^2
- HR < 40 or > 120 bpm; sBP < 80 mmHg
- Postural changes: > 20 mmHg drop in BP or > 20 bpm increase in HR
- Core temp < 35 degrees Celsius
- Ischemia, cardiac arrhythmia, prolonged QTc > 500
- Severe electrolyte disturbance
- Signs of renal or hepatic failure
- Seizure, confusion, decrease LOC
- Severe hypoglycemia
- Sudden weakness
- Severe GI pain with increased amylase and lipase (pancreatitis)

Patient may need to be certified for transfer to hospital for emergency medical treatment

Most common emergency presentation in our setting: hypokalemia

CLINICAL FEATURES: PROFILE OF A PATIENT AT HIGH RISK FOR DEATH

- Very low weight
- Multiple purging methods
- No medical follow-up
- Ipecac use
- Amphetamine or cocaine use
- Chronic self-harm or suicide attempts
- Bradycardia or tachycardia

MEDICATIONS

- Food is medicine
- AN:
  - ? Treat depression/anxiety with SSRI
  - Watch out for prolonged QTc
- BN:
  - SSRIs high dose (e.g. Prozac 60 mg)
- Wellbutrin contraindicated
- BED: SSRIs, Topiramate, Vyvanse

COMMON REQUESTED MEDS

GI:

- Constipation: fibre, stool softeners, PEG, NO stimulant laxatives
- Bloating: Gaviscon, simethicone
- Digestion: domperidone (watch out for QTc)
- See MD for extreme acute pain (risk of pancreatitis)

COMMON REQUESTED MEDS

Sleep:

- Melatonin, tryptophan
- Mirtazepine, trazodone, zopiclone
- Quetiapine (off label)
- Avoid benzodiazepines

COMMON REQUESTED MEDS

Anxiety (before meals or in general)

- Quetiapine
- Benzodiazepines generally avoided

MEDICAL PROBLEMS

ELECTROLYTE/FLUID ABNORMALTIES

- Low potassium
- Low magnesium
- Low phosphate
- Metabolic alkalosis from vomiting, diuretics
- Dehydration

CARDIOVASCULAR

- Decreased BP
- Decreased HR
- Arrhythmias
- Sudden cardiac death
- Peripheral edema
- Cardiac muscle loss
- Ipecac myocardial tissue toxin

GASTROINTESTINAL

- Enlarged parotid glands
- Reflux, Barrett's esophagitis
- Esophageal tears
- Esophageal/gastric ulcers
- Bloating
- Constipation
- Pancreatitis

ENDOCRINE

- Irregular menses/amenorrhea
- Fertility problems
- Pregnancy – fetal malnutrition and complications
- Thyroid changes: low active T_3,T_4, increased rT_3, TSH normal or a little high

BONES

- Osteopenia/osteoporosis
- Fractures
- Bone mineral density scan if underweight for > 6 months, repeat every 2 years if still underweight
- Followed by osteoporosis clinic
- Bisphosphonates not helpful

OTHER

- High cholesterol
- Vitamin deficiencies
- Zinc deficiency
- Iron deficiency

- Skin- Russell's sign, colour changes
- Hair- loss, lanugo

CASE

- 19-year-old female patient comes to you with low weight BMI 16 (weight loss of 35lb since started university 6 months ago) and complaints of constipation.

- Dx?
- Concerns/considerations?
- Periods?
- Level of denial and motivation for Tx

Issues:

- Safety concerns: risk for electrolyte abnormalities; needs regular bloodwork and ECG, weights
- Deterioration of ED while considering
- Need for monitoring

- Multidisciplinary team:
  - Medical monitoring
  - Psychotherapy
  - Dietitian
  - Intensive treatment