Eating Disorder & BAD

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History

- Described and named by Lasegue (1873) and Gull (1874)
- “self-inflicted fasting”
- Late 19th century, increased in adolescent cases
- Little psychiatric illness
- Managed at home, general infirmaries or asylum

Karen Carperter (1950 – 1983)

Epidemiology (I)

- Male to female (1:10)
- Mean age of onset
  - Female 16 to 17 years old (rarely > 30)
  - Male 12 years old
- Incidence: 0.5% (most studies <1%)
- More in upper or middle class (clinic sample)
- Cultural factor: rare among Blacks in UK, US and Africa.

Epidemiology (II)

- Occupation at risk
  - Model
  - Female distance runner
  - Male bodybuilder
- Co-morbidity
  - Depression (or dysthymia): 50 to 75%
  - Bipolar affective disorder: 4 to 13%
  - Obsessive-compulsive disorder: 25%
  - Substance abuse: 12 to 18%
  - Personality disorder: 42 to 75%
  - Report of sexual abuse: about 20%

Body Mass Index (I)

- For predicting health risks
- BMI = Weight (in kg) / [Height (in meter)]^2
- Developed by Belgian statistician Adolphe Quetelet in 19th century
- Less reliable in children and teenage, pregnant and nursing women, competitive athletes and bodybuilders, and people over 65

Body Mass Index (II)

Male	Female	interpretation	Risk
<19.1	<20.7	Underweight	Lower BMI, greater risk
19.2 – 25.8	20.8 – 26.4	Ideal weight	Very low risk
25.9 – 27.3	26.5 – 27.8	Marginally overweight	Some risk
27.4 – 32.2	27.9 – 31.1	Overweight	Moderate risk
32.3 – 44.8	31.2 – 45.4	Very overweight (obesity)	High risk
>44.8	>45.5	Morbid obesity	Very high risk

Diagnostic Criteria

- Low body weight
  - >15% below expected
  - BMI 17.5 or less
- Self-induced weight loss
- Body image distortion
- Endocrine disorder
- Delayed / arrested puberty – if onset pre-pubertal

Aetiology

- Genetic
  - MZ : DZ = 65% : 32%
  - Female siblings: 6 – 10%
- Adverse life events
- Psychodynamic models
- Biological
  - Hypothalamic dysfunction
  - Neuropsychological deficits
  - Brain imaging

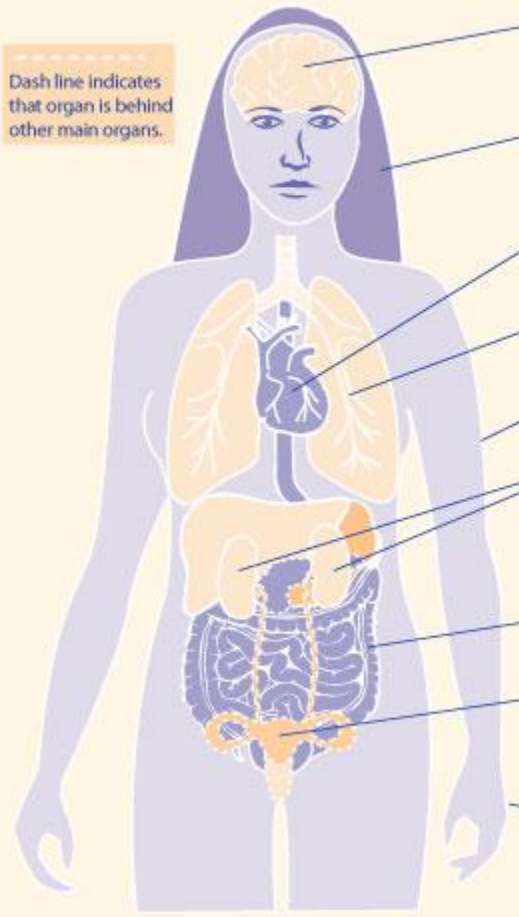
Differential diagnosis

- OCD
- Depression
- Chronic debilitating physical disease
- Brain tumours
- GI disorders (e.g. Crohn's disease, malabsorption syndromes)
- Loss of appetite (may be drug related, e.g. amphetamine)

Common Problem

- Oral
- Cardiovascular
- Gastrointestinal
- Endocrine and metabolic
- Renal
- Reproductive
- Dermatological
- Neurological
- Hematologic

Anorexia affects your whole body



Brain and Nerves
can't think right, fear of gaining weight, sad, moody, irritable, bad memory, fainting, changes in brain chemistry

Hair
hair thins and gets brittle

Heart
low blood pressure, slow heart rate, fluttering of the heart (palpitations), heart failure

Blood
anemia and other blood problems

Muscles, Joints, and Bones
weak muscles, swollen joints, bone loss, fractures, osteoporosis

Kidneys
kidney stones, kidney failure

Body Fluids
low potassium, magnesium, and sodium

Intestines
constipation, bloating

Hormones
periods stop, problems growing, trouble getting pregnant. If pregnant, higher risk for miscarriage, having a C-section, baby with low birthweight, and post partum depression.

Skin
bruise easily, dry skin, growth of fine hair all over body, get cold easily, yellow skin, nails get brittle

Assessment
Full Psychiatric History

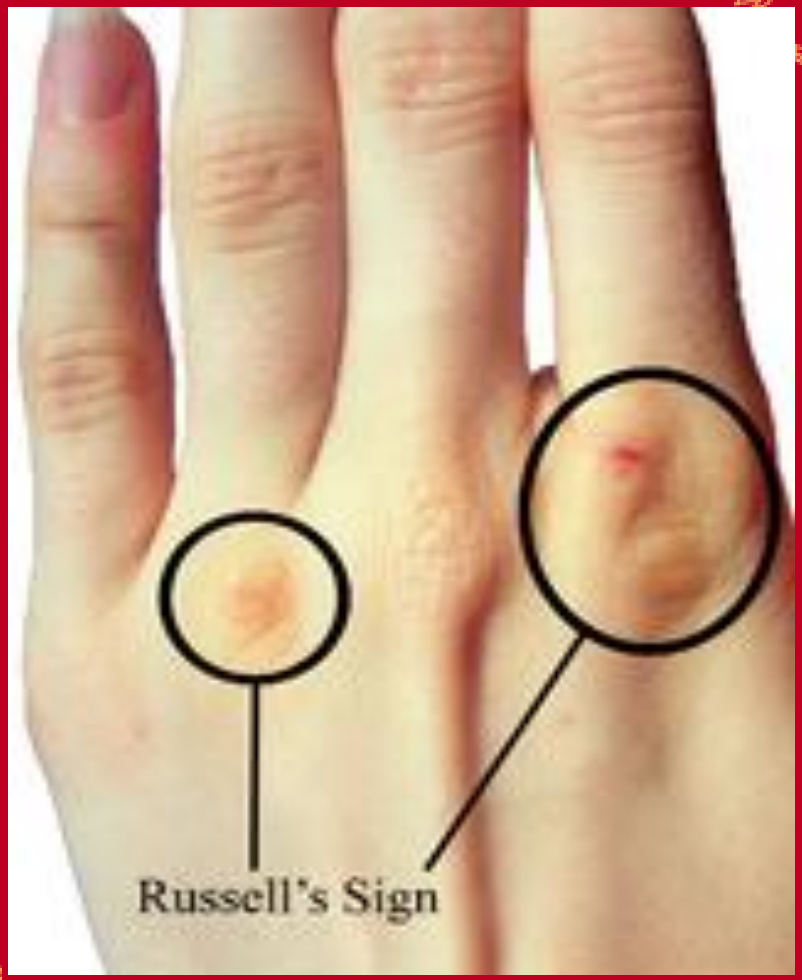
- Concentration
- Memory
- Decision-making
- Irritability
- Depression
- Low self esteem
- Loss of appetite
- Reduced energy
- Insomnia
- Loss of libido
- Social withdrawal
- Obsessiveness regarding food

Assessment
Full Medical History

- General physical health
- Amenorrhoea
- Cold hands and feet
- Weight loss
- Constipation
- Dry skin
- Hair loss
- Headaches
- Fainting or dizziness
- lethargy

Physical Signs

- Loss of muscle mass
- Dry skin
- Brittle hair and skin
- Russel sign
- Anemia
- Yellow skin and sclera
- Lanugo body hair
- Eroded tooth enamel
- Peripheral cyanosis
- Hypotenion
- Bradycardia
- Hypothermia
- Atrophy of breasts
- Swelling of parotid glands
- Swollen tender abdomen
- Peripheral neuropathy


Russell's Sign

Blood Test (I)

- CBC – Hb may be normal or elevated, leucopaenia and thrombocytopania
- ESR – normal or reduced; if elevated (look for organic cause)
- RFT
  - increased in urea and creatinine
  - Hyponatraemia
  - Hypokalaemic hypochloraemic metabolic alkalosis
  - Metabolic acidosis

Blood test (II)

- Glucose – hypoglycaemia
- LFT – minimal elevation
- TFT – low T3 / T4
- Albumin / total protein – usually normal
- Cholesterol – may be dramatically elevated
- Endocrine
  - Increased in cortisol, GH
  - Decreased in LHRH, LH, FSH, oestogens and progestogens

Cardiac Investigation

- ECG
  - Sinus bradycardia (30 – 40 bpm)
  - ST elevation and T wave flattening
  - Low voltage and right axis deviation
  - QT prolongation
- Echocardiogram
  - Decreased heart size
  - Decreased left ventricular mass
  - Mitral valve prolapse
  - Recover on refeeding

Management (I)

- Aims of treatment
  - Restore patients to healthy weight
  - Treat physical complication
  - Enhance patient's motivation
  - Provide education regarding eating pattern
  - Correct core dysfunctional thought
  - Treated associated psychiatric condition
  - Family support and family counseling
  - Prevent relapse

Management (II)

- Site of management
  - Outpatient
  - Intensive outpatient
  - Day centre
  - Residential treatment centre
  - Inpatient treatment

Management (III)

- Criteria for admission to hospital
  - <75% healthy body weight
  - Severe electrolyte imbalance
  - Hypothermia (<36^{o}C); bradycardia (<45bpm)
  - Severe cardiac or medical complication
  - Close observation is needed
  - Marked change in mental status
  - Psychosis or significant risk of suicide
  - Failure of outpatient treatment

Management (IV)

- Psychiatric Management
  - Establish and maintain a therapeutic alliance
  - Coordinate care and collaborate with other clinician
  - Assess and monitor eating disorder symptoms and behavior
  - Assess and monitor the patient's general medical condition
  - Assess and monitor the patient's psychiatric status and safety
  - Provide family assessment and treatment

Assessment Instruments

- Self-report
  - Diagnostic Survey for Eating Disorder (DSED)
  - Eating Attitudes Test
  - Eating Disorders Examination – Q4 (EDE-Q4)
  - Eating Disorders Inventory
  - Eating Disorders Questionnaire
  - Questionnaire of Eating and Weight Patterns
- Semi-structured Interview
  - Eating Disorders Examination (EDE)
- Clinical Conducted Interview
  - Yale-Brown-Cornell Eating Disorder Scale

Management (V)

- Nutritional rehabilitation
- Psychosocial Intervention
- Medications

Management (VI)

- Re-feeding aimed at 1kg per week
- Adverse effect of re-feeding
  - Fluid retention (transient or rebound)
  - Abdominal pain and bloating
  - Cardiac arrhythmias, cardiac failure, delirium, seizures (rapid re-feeding)
  - Hypophosphatemia
  - Constipation
  - Acne or breast tenderness

Management (VII)

- Antidepressant
  - Not routinely use in acute phase
  - No evidence for weight restoration
  - Helpful in weight maintenance
  - Improved in depressive symptoms
  - Reduce re-admission rate
  - Suggest: Fluoxetine 40mg daily
  - Use as OC or depressive symptoms persist

Management (VIII)

- Lithium – no substantial benefit
- Pimozide – no significant benefit
- Novel antipsychotics with SSRI – for highly OC patients
- Vitamin, hormone, ECT – no specific value
- Estrogen replacement – osteopenia in women (marginal)

Prognosis (I)

- Mortality rate: 20% (20 years FU)
  - 12 times increase in young women
  - 2/3 due to physical complication
  - 1/3 suicide
- 4 years follow up
  - Good 44% (within 15% of expected weight and regular menstruation)
  - Poor 24% (never within 15% of expected weight and menstruation absent)
  - 28% between good and poor
  - 67% have enduring morbid preoccupation
  - 40% have bulimic symptoms

Prognosis (II)

- Poor prognostic factors
  - Chronic illness
  - Late age of onset
  - Bulimic features
  - Anxiety when eating with others
  - Excessive weight loss
  - Poor childhood social adjustment
  - Poor parental relationship
  - Male sex

Binge Eating Disorder

- Periodically does not exercise control over consumption of food.
- Eats an unusually large amount of food at one time, far more than a normal person would eat in the same amount of time.
- Eats much more quickly during binge episodes than during normal eating episodes.
- Eats until physically uncomfortable and nauseated due to the amount of food just consumed.

Binge Eating Disorder

- Eats when depressed or bored.
- Eats large amounts of food when not really hungry.
- Usually eats alone during binge eating episodes, in order to avoid discovery of the disorder.
- Often eats alone during periods of normal eating, owing to feelings of embarrassment about food.
- Feels disgusted, depressed, or guilty after binge eating.
- Rapid weight gain, and/or sudden onset of obesity.

Binge Eating Disorder

- Diagnostic Criteria:
  - subjects must binge at least twice per week for a minimum period of three months for bulimia nervosa and a minimum of 6 months for BED
  - Those with binge eating disorder are more likely to be overweight or obese

ED and BAD

- Epidemiology
- Phenomenologic similarities
- Course
- Family history
- Treatment
  - Mood stabilizers
  - Antiepileptcs
  - Antidepressant
  - Psychological treatment


Thank you