Clinical Features

Characterized by the following:

- **Obsessions** (recurring distressing ideas or images)
- **Compulsions** (recurring behaviors designed to decrease anxiety caused by obsessions)

**Prevalence:** 2%

**Male** and **females** affected equally

Clinical Features (cont'd)

Onset of OCD appears to be bimodal, with onset either during childhood (mean age 10 years) or during adolescence or young adulthood (mean age 21 years).

Onset is earlier in boys than in girls, and onset after 30 years of age is unusual.

In childhood-onset OCD, boys are more commonly affected than girls.

Clinical Features (cont'd)

OCD is associated with significant disability and chronicity.

WHO: OCD is one of the world’s top 10 causes of illness-related disability.

Approximately 30% of patients are not helped at all or are inadequately helped by current pharmacotherapies.

Subtypes

**Common Obsessions**

- Contamination
- Pathologic doubt
- Somatic obsessions
- Symmetry
- Taboo

**Common Compulsions**

- Checking
- Washing
- Counting
- Needing to confess

Clinical Features (cont'd)

- Cultural factors may influence the content of obsessions (eg, aggressive and religious obsessions in Brazil and Middle Eastern countries).

- Subtypes of OCD vary according to age or developmental stage (eg, rates of harm obsessions, such as fears of death or illness regarding oneself or loved ones, are higher among children and adolescents than among adults).
**Diagnosis**

- Patients with OCD should be assessed regarding their conviction that their obsessive beliefs are accurate.
- Poor insight, to varying degrees, occurs in 14% to 31% of persons with OCD and has been associated with worse treatment outcomes.
- Up to 30% of persons with OCD have a tic disorder, the presence of which has been associated with a poor response to pharmacotherapy for OCD in children and adolescents.

**Screening Questions**

- Have you been bothered by thoughts that didn’t make any sense and kept coming back to you even when you didn’t want them to, like being exposed to germs or dirt or needing everything lined up in a certain way?
- How about having images pop into your head that you didn’t want like violent or horrible scenes or something sexual?
- How about having urges that kept coming back to you even though you didn’t want them to, like harming a loved one?

**Screening Questions (cont’d)**

- Was there ever anything that you had to do over and over again and couldn’t resist doing, like washing your hands again and again repeating something over and over again until it “feels right”, counting up to a certain number, or checking something several times to make sure that you did it right?
- How much time a day would you spend with these thoughts or doing these behaviors? Did these thoughts or behaviors have an effect on your life or bother you?
- How strongly do you believe these thoughts are true or likely to happen? Are you completely convinced?

**Differential Diagnosis**

- Generalized anxiety disorder
- Psychotic disorder
- Autism spectrum disorder
- Tic disorder
- Social anxiety disorder
- Major depressive disorder
- OCPD

OCD = obsessive-compulsive personality disorder.

**Why Treat OCD?**

- Without treatment, remission rates are low (approximately 20%).
- With appropriate treatment, patients report substantially higher rates of symptom response and remission.
- Higher rates of symptom remission associated with a shorter duration of illness, suggesting that early diagnosis and treatment may lead to improved outcomes.
- Only approximately one-third of patients with OCD receive appropriate pharmacotherapy, and < 10% receive evidence-based psychotherapy.

**OCPD**

- Chronic maladaptive pattern of excessive perfectionism and need for control over the environment.
- Traits: Rigidity, miserliness, perfectionism, overattention to detail, excessive devotion to work, inability to discard worn or useless items, hypermorality, and inability to delegate tasks.
- Starts in childhood or early adolescence.
- 7.8% of a community sample.
Treatment

- Clomipramine – EKG, blood levels, drug interactions
- SSRIs
- Augmentation strategies
- Cognitive-Behavioral Therapy (CBT) / Exposure and Response Prevention (ERP) Therapy

EKG = electrocardiogram; SSRI = selective serotonin reuptake inhibitor.

FDA-Approved Medications for OCD

- Clomipramine – SRI 150–250 mg/day
- Fluoxetine – SSRI up to 120 mg/day
- Fluvoxamine – SSRI up to 300 mg/day
- Paroxetine – SSRI up to 80 mg/day
- Sertraline – SSRI up to 400 mg/day

All except paroxetine approved for ages ≥ 6 to 10 years
Higher doses not approved by FDA; Higher doses than those approved for major depressive disorder


Augmentation Strategies

- Serotonergic drugs
  - Onodansetron (5-HT3 antagonist) (1–8 mg/day)
  - Clomipramine – add to SSRIs, but caution warranted if added to fluoxetine or paroxetine
  - Negative studies of mirtazapine and buspirone (5-HT1A receptor partial agonist)
- Antipsychotics
  - Risperidone (0.5–3 mg/day); response rates 40%–50%
  - Aripiprazole (10–15 mg/day)
  - Haloperidol (2–10 mg/day)
  - Mixed results for quetiapine and olanzapine
  - Metabolic syndrome, hypercholesterolemia, diabetes, obesity


Augmentation Strategies (cont’d)

- Glutamatergic drugs
  - Memantine, an NMDA receptor antagonist (5–20 mg/day)
  - N-acetylcysteine (NAC) (600–2400 mg/day)
  - Topiramate (150–200 mg/day)
  - Lamotrigine (100 mg/day)
  - Negative studies of riluzole and glycine an NMDA agonist
- Other agents
  - Pindolol (pre-synaptic 5-HT1A receptor antagonist) – mixed studies (7.5 mg/day)
  - Once weekly morphine (30–45 mg/week)
  - Lithium, naltrexone, desipramine – negative studies

NMDA = N-methyl-D-aspartate receptor.

Cognitive-Behavioral Therapy

Exposure and Response Prevention Therapy

- ERP consists of repeated and prolonged exposures to fear-eliciting stimuli or situations, combined with instructions for strict abstinence from compulsive behaviors
- Fear-eliciting stimuli or situations are presented in a hierarchical manner
- Therapist instructs patient to abstain from the compulsive behavior that the patient believes will prevent the feared outcome or reduce the distress

ERP

- The purpose of these exercises is to allow the patient to experience a reduction of the fear response, to recognize that these situations are not high risk, and to learn that anxiety will subside naturally if the patient does not make efforts to avoid it
- Patients are instructed to focus directly on aspects of the feared situation that increase anxiety and obsessive thoughts; they may need to be reminded to do so during the exposure because many will engage in subtle avoidance or distraction
- For exposures to be maximally effective, patients must persist with them until they learn that anxiety will reduce naturally. Patients are typically instructed to complete the exposure daily

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ERP
ERP (cont’d)

- 60% to 85% of patients report a considerable reduction in symptoms with ERP and improvement is maintained for up to 5 years
- ERP can be delivered in multiple formats, including by telephone or by internet with minimal therapist support, with similar efficacy
- ERP should be delivered weekly or twice weekly, for approximately 20 to 30 total hours of therapy
- After the short-term treatment, exposure therapy should be delivered as monthly “booster” sessions for 3 to 6 months to maintain gains

Cognitive Therapy

- Cognitive therapy focuses on teaching patients to identify and correct their dysfunctional belief about feared situations
- Cognitive therapy assists patients in reducing anxiety and compulsions by identifying these automatic unrealistic thoughts and changing their interpretations
- When undergoing cognitive therapy, the patient keeps a daily diary of obsessions and interpretations associated with the obsessions
- Using Socratic questioning, the therapist challenges the unrealistic belief and helps the patient identify the cognitive distortion

Cognitive Therapy (cont’d)

- The therapist implements behavioral experiments (eg, a patient is asked to touch a range of dirty objects without washing the hands and to keep a log of how often illness follows after doing so) to disprove errors in thinking about cause and effect
- Behavioral experiments differ from the exercises used in ERP in that, while engaging in the feared behavior, patients are not focusing on anxiety reduction (as with ERP) but instead are challenging the belief that they could ultimately become ill by not washing
- Patients thereby learn to identify and re-evaluate beliefs about the potential consequences of engaging in or refraining from compulsive behaviors

Cognitive Therapy (cont’d)

- Cognitive therapy has shown improvement in 60% to 80% of patients, with effect sizes almost as large as those with ERP
- As with ERP, dropping out of cognitive therapy prematurely is common (20% to 30% of patients)
- Although cognitive therapy may be a viable alternative for patients who are reluctant to participate in ERP, ERP is supported by a larger body of empirical data and is therefore recommended as the first-line psychotherapy treatment for OCD

Case 1

- A 19-year-old man is brought to his primary physician by his father, who explains that his son washes his hands 100 times a day, will not touch anything that has been touched by someone else without scrubbing it first, and has a fear of germs that has left him isolated in his bedroom, unable to eat, and wishing he were dead
- Although the father reports that his son has always been finicky, this problem started approximately 2 years ago and has gradually become completely disabling
- How should this patient be evaluated and treated?

Treatment of Case 1

- Given how disabling OCD is, recommend SSRI and ERP simultaneously
  - Weekly ERP
  - Fluoxetine 20 mg/day and increase to 80 mg/day within 2 to 3 weeks
  - If unwilling to go to ERP due to OCD, use medication to reduce OCD and then perhaps start ERP in a few weeks
  - If fluoxetine only partially effective, then add memantine 10 mg/day
Case 2

- 28-year-old businesswoman seeking treatment for the first time
- Onset at 8 months ago after birth of son
- Images of her performing sex acts on her child
- Refuses to change her child or hold him
- Depressed and wants to kill herself

Treatment of Case 2

- Provide education about OCD and how it differs from pedophilia; also education about SSRIs while breastfeeding
- Suicide assessment
- Start SSRI – escitalopram 10 mg/day and increase in 1 week if no benefit or partial benefit; if no benefit after higher dose of 20 mg/day, switch to different SSRI
- Start ERP twice per week

Case 3

- 45-year-old male
- 20 years of OCD with limited improvement from previous treatments
- Obsessions of harm to others – fears he has killed people from actions, goes to police and turns himself in weekly; bothers neighbors to see if they are OK
- Has motor tics of the face and throat clearing

Treatment of Case 3

- Get a clear history of all medication trials and the doses and durations of those doses
- Get history of therapy and whether he did exposures
- If has tried 2 to 3 SSRIs at high doses, consider trial of clomipramine; get EKG and start 50 mg/qhs
- Consider starting risperidone 0.5 mg/qhs 1 week after clomipramine
- If failed ERP, consider cognitive therapy

Case 4

- 23-year-old male found in a grocery store
- Standing in the aisle for 8 hours
- Mumbling to himself
- Saying that there were bad foods, thought to be psychotic
- Taken to ER
- Had contamination issues and would bleach food before eating it

Treatment of Case 4

- Get a clear history of all medication trials and the doses and durations of those doses and therapy history; had tried all SSRIs at high doses for at least 8 to 10 weeks and had done > 30 hours of ERP and cognitive therapy
- We started trial of clomipramine (250 mg/day); limited benefit; added memantine (no benefit), then risperidone (no benefit), then aripiprazole (no benefit); another trial of ERP (no benefit)
- Consider ethical review for surgery
Ablative Surgeries

- Anterior Cingulotomy: Success rate of 56%
  - Interrupts fibers in the cingulate bundle
- Subcaudate Tractotomy: Success rate of 50%
  - Lesions in rostral part of orbitofrontal cortex ventral to head of the caudate
- Limbic Leucotomy: Success rate of 61%
  - Lesions in cingulate and orbitomedial frontal areas
- Anterior Capsulotomy: Success rate of ~50% to 67%
  - Lesions in the anterior limb of the internal capsule

DBS: Selection

- Diagnosis of OCD duration of at least 5 years
- Y-BOCS score of ≥ 30
- Failed to improve following treatment with at least 3 SRIs (and clomipramine) with augmentation
- Completed or tried to complete CBT
- Ethics panel selection
- Surgical inclusion/exclusion criteria

DBS: Follow-Up Data

- Followed 3 to 8 years post implantation
- Presurgical Y-BOCS 34.4; 1 year 22.4 and remained essentially unchanged thereafter
- Number of medications prescribed decreased by 1 to 2
- "Incompleteness" (aimed at attaining a feeling of thing being "right") improved less overall

Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS)/PANDAS

- PANS – unique subgroup of patients with abrupt onset of OCD symptoms clinically related to Streptococcus infection and accompanied by neuropsychological and motor symptoms
- Although antibiotics have been reported to be effective for acute and prophylactic phases in uncontrolled studies and non-steroidal anti-inflammatory drugs are used during exacerbations, clinical multicenter trials are still missing
- SSRIs and ERP are still the first-line of recommendation for acute onset OCD spectrum

Conclusions

- OCD is common and disabling
- Evidence-based treatments are available
- Many clinicians do not appropriately screen for or know how to treat OCD

Practical Take-Aways

- OCD is a common, disabling psychiatric disorder
- OCD is commonly misdiagnosed as anxiety or depression
- Approximately one-third of patients with OCD receive appropriate pharmacotherapy, and < 10% receive evidence-based psychotherapy
- First-line therapies for OCD include exposure and response prevention therapy and SRIs, often at higher doses than in depression or anxiety