Synchronization between Pharmacotherapy and Psychotherapy: Frontier for OCD

Keywords: Obsessive-compulsive disorder, Pharmacotherapy, Psychotherapy, Y-BOCS, EXRP

ABSTRACT

Objective: The OCD affects nearly 2-3% of the general population which results in suffering, functional impairment and economic burden to both patient and health-care system and is a cause of long term disability. OCD is a psychological disorder which is usually taken for granted by the patients as well as by their families until it gets serious. So, correct line of treatment and synchronization between pharmacotherapy and psychotherapy is being discussed. Method: A scientific and selective search is conducted on articles relevant to OCD and treatment related to OCD and various review articles been studied. Results: Combination of both psychotherapy and pharmacotherapy shown promising results among patients in comparison to individual therapy. SSRIs remain the drug of choice among majority of individuals and EXRP among psychotherapy shown better results in comparison to other therapies. Conclusion: OCD is a chronic disorder which needs to be treated as the symptom arises or before the worsening of condition and SSRIs shown good results among individuals suffering from OCD and augmentation therapy works as a support in patient with comorbidities and time to time session of psychotherapy mainly EXRP plays a vital role in betterment of the patient and performing both in a synchronized manner will help in reduction of symptom within lesser span.
INTRODUCTION

Not all Microbial or Infectious diseases are chronic or the reason to worry, there are some psychological problems or diseases which causes lifetime disability and can become chronic if overlooked or taken for granted and OCD is one of those disorders.

Obsessions and Compulsions are the characteristics of Obsessive-compulsive disorder (OCD). Obsessions can be defined as unwanted and distressing thoughts, images, or urge whereas, on the other side, compulsions are repetitive behaviors or mental acts that a person feels compelled to perform, typically with a wish to resist. The lifetime prevalence of OCD is found to be 2 to 3% in the population and it is linked with significant suffering, economic burden and functional impairment to both health care systems as well as to the individual [1].

Initially, OCD was considered as an element of depression, that’s why it was called “anankastic depression.” In 1980s this concept was questioned, it was found that only antidepressants with serotonin-reuptake inhibition activity were effectual in curing obsessions and compulsions. There has been an important fundamental shift in last few years, including other neurotransmittorial systems in the presumed pathophysiological mechanisms implicating in OCD, such as dopamine, glutamate, noradrenaline and GABA. This prompts a theory that OCD might be an etiologically heterogeneous condition, in this way being influenced by a wide range of comorbidities, people with OCD as often as possible have extra psychiatric disorders associatively or eventually during their lifetime [2].

OCD is typically connected with dramatic disabilities in interpersonal and occupational functioning and is one of the most impairing medical conditions with considerable direct and indirect economic and societal costs [3]. Despite the fact that the etiology and pathophysiology of OCD remain indistinct, developing evidence proposes that this illness is associated with
dysfunctions in the orbitofronto-striato-pallido-thalamic circuitry including the dorsolateral prefrontal cortex (DLPFC), orbitofrontal cortex (OFC), medial prefrontal cortices, anterior cingulated gyrus, supplementary motor area (SMA), and basal ganglia [4,5,6].

OCD symptoms are usually same in children as well as in adults. In contrast to many adults, the younger ones mostly do not find anything unusual with them, as they think it’s a better way to be away from any kind of infection, so they wash their hand much more than normal and do not able to distinguish between obsessional thought and normal thought, sometimes upon exaggeration of thoughts, these thoughts start causing more trouble and frighten them and their family members.

Practically, these obsessional thoughts are against the will of an individual and are like the parasite which feed upon their ability to think up properly. Quality of Life generally decreases due to this among OCD sufferers. Youth show risky peer relations, academic challenges, sleep problems and take an interest in less recreational exercises than coordinated friends [7].

OCD has grown out to be a big topic as it become more prevalent over time or people usually suffer more from psychological disorders. OCD may have relapsing symptoms, highly probable that these thoughts intervene with daily deeds, treatment has been given since its start in various form whether pharmacological or non-pharmacological and also with various research in its field, treatment approaches has changed a bit over time from monotherapy to educating patient to Cognitive Behavioral Therapy, to augmentation with other agents [8].

Cognitive behavioral therapy and pharmacotherapy with selective serotonin reuptake inhibitors (SSRIs) are the choice of treatment for OCD. SSRIs have been shown to have better efficacy to placebo. Many OCD specialists support the utilization of higher and rapidly heightening dosages of SSRI for the treatment of OCD, when compared with different situations where antidepressants are efficacious, for example, other anxiety disorder and major depressive disorder. The American Psychiatric Association Practice Guidelines suggest higher target doses of SSRIs required in the treatment of OCD than required for depression. The clinical meanings of treatment resistance and refractory OCD require patients to fail to experience enhancement on multiple SSRI at the highest tolerated dose for a sufficient span (at least 2 months). OCD patients are treated with higher doses of SSRI contrasted with many different conditions before progressing to unconventional or enhancement treatment. However, controlled studies have not normally demonstrated benefit from higher doses of
SSRIs, which may have a higher side effect concern [9]. Current first-line treatment techniques for OCD incorporate high doses of selective serotonin reuptake inhibitors (SSRIs; e.g., citalopram, paroxetine) or clomipramine, a tricyclic antidepressant given for long duration of time and additionally combined with cognitive behavioral therapy [10].

In OCD resistant patients, pharmacological therapy has been extended to incorporate serotonin-norepinephrine reuptake inhibitors, intravenous clomipramine or citalopram, or atypical antipsychotics [11]. In any case, even with such diverse therapeutic alternatives, up to 60% of patients with OCD are either unable to endure drug reactions or just partly improve following treatment, and are left with determined symptoms with enduring repercussions on their worldwide working and prosperity [6].

Cognitive Behavioral Therapy lays foundation for the betterment of OCD patient. Observational assessment of the impacts of thought conquerment on thought recurrence and different factors have in this way become to the purpose for comprehending and treating OCD [12]. Psychological mediations have become undeniably an important slice of the treatment for this condition [13]. On quality of evidence, cognitive behavioral therapy (CBT) has been suggested by the AMERICAN PSYCHIATRIC ASSOCIATION [14] and the National Institute for Health and Care Excellence [15] as the treatment decision for OCD.

MATERIALS AND METHODS

This review is focused on OCD treatment literature and efficacy of Pharmacotherapy and Psychotherapy when performed simultaneously. Therefore PubMed (Medline), Elsevier, Cochrane and Google Scholar databases were searched using the terms ‘Obsessive-Compulsive Disorder’ or ‘Psychotherapy’ or ‘Pharmacotherapy’ or ‘Combination of Pharmacotherapy and Psychotherapy’ or ‘Current Treatment Trends in OCD’. Furthermore, we searched the currently available scientific literature.

RESULTS AND DISCUSSION

With all new research, studies, interventions, most effective and promising results are shown by patients after the use of SSRIs in any age group, which is liable to restore or balance the level of serotonin in the brain cells [16,17], treatment and dosing of drugs usually depends upon the severity of OCD, which is evaluated by either Y-BOCS Scale as shown in fig.1 [18] or partly by WHO-5 Well Being Scale which evaluate the grade of depression due to OCD [19], still lead to treatment failure if not used adequately.
ASSESSMENT SCALE

Yale brown Obsessive Compulsive Score (Y-BOCS) is used to assess the severity of disease, most commonly and widely used scale for OCD patients, severity is examined on the basis of score calculation as per their complaints.

![Y-BOCS severity checker for OCD Patients](image)

FIGURE NO. 1: SEVERITY IS CALCULATED ON THE BASIS OF SCORE AS SHOWN IN FIGURE

Various research findings suggest that synchronized treatment with both drug therapy and psychotherapy mainly ERP, plays a defining role in treating patient effectively within short span in comparison to one drug alone,[20,21]This be like treating patient with both hands from both side.

Use of mainly fluvoxamine or sertraline is suggested among SSRIs, fluoxetine, paroxetine is also used partly mentioned in table 1 and 2, and symptoms might be relapsing in many patients when SSRIs used alone, augmentation with neuroleptics showed promising results among OCD with comorbid disorders like tics rather than OCD alone, as suggested by various studies[22,23].

Most prominent psychological treatment came out among OCD sufferers is mainly, Exposure with response prevention (EX/RP), most of the researchers have placed it above medications alone as it involves dealing with patients psychology, involves interaction with patient, there is also lower relapse rate in comparison to medications, therapy generally includes 12-16 sessions, beginning with in-depth evaluation about patient triggers for obsessive thoughts, its compulsion in return to these thoughts and the amount of anxiety it causes while such thoughts pops out. Accordingly, exposure for patient has been planned and afterwards therapy started [24,25].

Several herbal and nutritional supplements emerges out as augmentation therapy for patient by various studies, like Vit. B12 and folate, zinc and selenium can be effective because of its antioxidant effects [26].

Effects of N-acetyl cysteine, Glycine, Myoinositol, St. John’s wort, Milk thistle is also being studied and reviewed and found to be effective if used in a correct manner [27].

In case of treatment resistant OCD, studies suggest the increase in dose of SSRIs or improvement in psychotherapy suggested and augmentation with Anti Psychotics being prescribed, in case of its failure, use of SNRIs been suggested such as duloxetine and venlafaxine [28,29].

Use of clomipramine for OCD was being suggested before the use of SSRIs being introduced, still came in use in some cases, SSRIs are better choice of drug as it has better tolerability than clomipramine, as shown by various findings[30].

Glutamate modulating drugs are nowadays being used in treatment of OCD and the prime topic of research in the field of OCD. Many Researches or studies are evaluating or examining the role of NMDA Receptor Antagonist (Memantine, ketamine) in OCD patients, some put forward with good results among OCD patients [31,32].

Invasive techniques like Neurosurgery, DBS (Deep Brain Stimulation), rTMS (Repetitive Transcranial Magnetic Stimulation) are required in very severe cases of anxiety caused by OCD [33,34].

PHARMACOTHERAPY

This is clearly a drug therapy in which drugs are prescribed to the patient following their diagnosis of OCD.
It involves:

**MONOTHERAPY**

This therapy includes prescribing of a drug alone or therapy by just one drug for betterment of patient or for their improval of condition and reduction of symptoms.

**TABLE NO. 1: DESCRIBE THE DOSE AND DRUG USED IN MONOTHERAPY FOR OCD**

<table>
<thead>
<tr>
<th>Drug (class)</th>
<th>Dose (depends upon severity)</th>
<th>Route</th>
<th>Side Effects</th>
<th>Grade (Risk: Benefit Ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluvoxamine (SSRIs)</td>
<td>50-300 mg</td>
<td>Oral</td>
<td>Anxiety, Nervousness, Sweating, nausea, Decreased appetite, Somnolence</td>
<td>1</td>
</tr>
<tr>
<td>Sertraline (SSRIs)</td>
<td>50-100 mg</td>
<td>Oral</td>
<td>Sleepiness, tremor, Nervousness, nausea, Dizziness, insomnia</td>
<td>1</td>
</tr>
<tr>
<td>Clomipramine (TCAs)</td>
<td>25-150 mg</td>
<td>Oral</td>
<td>Dry mouth, insomnia, Memory problem, Vision changes</td>
<td>2</td>
</tr>
<tr>
<td>Fluoxetine (SSRIs)</td>
<td>20-40 mg</td>
<td>Oral</td>
<td>Nausea, headache, Anxiety, insomnia, Skin rashes, vasculitis</td>
<td>1</td>
</tr>
<tr>
<td>Paroxetine (SSRIs)</td>
<td>20-40 mg</td>
<td>Oral</td>
<td>Headache, anxiety, Insomnia, constipation, weakness</td>
<td>1</td>
</tr>
</tbody>
</table>

SSRIs- Selective Serotonin Reuptake Inhibitors

TCAs- Tricyclic Antidepressants
Note:-

* Occurrence of side effect is not necessary among every individual, it varies differently among different individuals.

*I- good (risk: benefit ratio), recommended

AUGMENTATION THERAPY

(ANTIPSYCHOTICS AND VITAMINS)

This includes the use of combination of drugs rather than one drug alone to achieve the desired maximal effect.

**TABLE NO. 2: DESCRIBE THE AUGMENTED DRUG TO BE USED WITH SSRI**s

<table>
<thead>
<tr>
<th>Drugs (class)</th>
<th>Dose (patient specific)</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risperidone (Anti-Psychotics)</td>
<td>0.5-6 mg</td>
<td>Oral</td>
</tr>
<tr>
<td>Olanzapine (Anti-Psychotics)</td>
<td>5-10 mg</td>
<td>Oral</td>
</tr>
<tr>
<td>Vit. B12 and Folic Acid (Vitamins)</td>
<td></td>
<td>Oral</td>
</tr>
<tr>
<td>Zinc and Selenium (Essential Nutrients)</td>
<td></td>
<td>Oral</td>
</tr>
</tbody>
</table>

Treating patient with OCD is like breaking or disturbing their own pool of thoughts or making them aware about their own thought process or helping them to manage their own self-developed fear about certain things that is responsible for making them suffer or their suffering. The ultimate aim of treatment is to fill an individual with confidence to deal with such problem as lack of confidence, self-faith, and self-belief serve as a factor for OCD.

Pharmacotherapy helps in restoring chemicals in the brain and psychotherapy plays role in boosting confidence as shown in fig. 2[^35].
Contradictory results came from different studies performed among patients with OCD when both pharmacotherapy and psychotherapy performed together or in a coordinated manner in individual with OCD, some came out with result showing better results in patient when both are applied together, on the other hand few are against the result of adding both therapies together as alone CBT or monotherapy have shown equivalent results [36,37].

The better result can be shown if performed in a better effective manner, results have shown that individuals with comorbid condition like depression, have shown good results when both therapies are combined together [38,39].
Both therapies have their own distinctive role on an individual. ERP should be performed calmly as exposure triggers the patient that might scare them or make them anxious, so its needs to be done by an expert otherwise it will act like an exaggeratory factor for them. Augmentation Therapy also plays a handy role on behalf as it will act as an extra agent in reduction of anxiety and symptom reduction.

CONCLUSION

This study concluded that various research has been done in this field, various new treatment approaches introduced with time, but SSRIs remains the treatment of choice or first line treatment among individual diagnosed with OCD due to better tolerability and better effectiveness, if that doesn’t work then the dose of SSRIs are increased and CBT technique should be introduced for patient, in case of that failure, augmentation with several Anti-Psychotics prescribed and if symptom doesn’t improve SNRIs shall be introduced and recent techniques include use of D-cycloserine, NMDA receptor antagonist.

Better effective results shown by various studies is by synchronization of both drug therapy i.e pharmacotherapy with psychotherapy that helped patients a lot in improving their symptoms. If both therapy applied carefully under expert supervision and patient cooperation, then it’ll come out to deliver the best result but every parameter should fulfill its requirement.

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