

REVIEW ARTICLE

Role of selective serotonin reuptake inhibitors in anxiety disorder

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ABSTRACT

Anxiety is a common psychiatric disorder that affects almost all the age groups. Moderate-to-severe anxiety requires medical treatment in addition to psychotherapy in order not to progress to a more severe condition. However, the use of anti-depressant, especially, selective serotonin reuptake inhibitors (SSRIs) for these indications, has been questionable. This review aims to evaluating the literature on the role of SSRIs in the management of anxiety. The online databases Pubmed, Google Scholar, and CINAHL were used to perform a literature search for publications published between 2012 and 2019, without any date or language restrictions. We used a combination of relevant search terms "SSRI and anxiety'." We independently identified publications and systematically screened titles, abstracts, and full texts of the collected publications. Among 27 articles initially selected based on the title and abstract, 21 articles were excluded as the targeted population was not Saudi Arabian ethnicity. Finally, six review articles were selected and included in the review. SSRIs have a significant role in the management of anxiety disorder, especially anxiety that is correlated to depressive disorders. SSRIs showed a better safety profile compared to conventional agents used to treat anxiety previously.

Keywords: SSRI, treatment, anxiety.

Introduction

Anxiety is regarded as a leading psychiatric disorder [1]. It is a chronic condition that affects all age groups can persist for a long time [2]. Anxiety is usually diagnosed as comorbidity for other psychiatric problems, most commonly depression [3]. Yet, severe anxiety usually affects young adults and can result in some psychosomatic symptoms [4]. These symptoms can have severe health implications [5]. Some anti-depressant medications have been proposed as a possible treatment for anxiety due to their additional anxiolytic effect [6]. These agents include selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and tricyclic anti-depressants (TCAs) [7]. However, SSRI has been rigorously reviewed for its effective anxiolytic efficacy with an acceptable safety profile compared to other agents [8]. However, additional data is still needed to explain the particular role of SSRI in the treatment of anxiety, in addition to evaluating the risk of side effects and discontinuation symptoms of SSRI, when used as anxiolytic agents [9].

Literature Search

The online databases Pubmed, Google Scholar, and CINAHL were used to perform a literature search for publications published between 2012 and 2019, without

any date or language restrictions. We used a combination of relevant search terms "SSRI" and "anxiety'." We independently identified publications and systematically screened titles, abstracts, and full texts of the collected publications. Among 27 articles initially selected based on the title and abstract, 21 articles were excluded as the targeted population was not Saudi Arabian ethnicity. Finally, six review articles were selected and included in the review.

Discussion

What is an anxiety disorder?

Anxiety disorder has been defined as persistent, chronic stress that cannot be controlled by the patient, which

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can negatively affect the quality of life, sleep pattern, in addition to influencing the occurrence of some psychosomatic symptoms. These symptoms can also be hazardous and sometimes life-threatening [3,6,9]. Anxiety can be mild, which usually requires psychotherapy and lifestyle modification. Although it can also be moderate or severe, where psychotherapy solely will not be effective, and further pharmacological treatment will be required [8,10]. The major problem with anxiety management is that it requires a long-term treatment, in addition to the recurrence of the disease, which increases its burden [11]. Therefore, long-term pharmacological treatment is usually essential [12]. Anxiety is subcategorized in six different disorders; these include Social anxiety, post-traumatic stress syndrome, generalized anxiety, obsessive-compulsive disorder, and Phobia [10].

Management strategies for anxiety

The treatment of anxiety usually requires the use of medications that have anxiolytic properties, which are commonly prescribed as monotherapy, or combination, especially in severe conditions [13]. Benzodiazepines were historically identified as one of the effective pharmacological classes for the treatment of anxiety [14,15]. However, due to severe discontinuation symptoms, dependence tendency, and hypnotic properties, they are currently less preferable, especially with the development of some other medication with better safety profile [16]. SSRIs, SNRIs, and TCAs have been proposed as more favorable agents for the treatment of anxiety compared to benzodiazepines, especially the newer agents [17]. It is worth to mention that the anxiolytic agent should be used in parallel to psychotherapy in the form of compulsive behavioral therapy (CBT) [15,16]. Moreover, agents with high serotonergic activity have superior efficacy in patients with an obsessive-compulsive disorder with anxiety [15,17]. Yet, in more severe cases, other agents, including monoamine oxidase inhibitors and TCAs are more preferable as alternatives [18]. The safety and efficacy of these agents as anxiolytics have been reported. Imipramine is one of the TCAs which showed a comparable anxiolytic effect to SSRI and benzodiazepines, with higher anti-depressant potential and improving psychosomatic symptoms [18]. Though Imipramine showed an increased incidence of orthostatic hypotension, weight gain, in addition to anticholinergic symptoms [19], all these side effects reduced compliance and tolerability of TCAs, making them less preferable compared to SSRI [20].

The role of SSRI as an anxiolytic agent

SSRIs are currently playing a significant role in the pharmacology of psychiatric treatment, particularly with the huge advances in the agents of these pharmacological classes in addition to the agents available currently in the pipeline [11,21]. SSRIs acts by their action on 5-HT receptors, which halts the reuptake of serotonin, thus increasing the availability of this neurotransmitter

and reducing anxiety and depression symptoms [12,13]. SSRIs have recently been recommended as the treatment of choice for anxiety due to their potent anxiolytic action in addition to effective anti-depressant effect [9,13,22]. Another privilege of SSRIs is their low incidence of adverse events compared to other anxiolytic agents [13]. Previous reports revealed that SSRIs could decrease the avoidance of harm and improve self-confidence [15,19,23]. However, the minimal effect was shown regarding interaction with others. Additionally, SSRIs showed a significant improvement in personal traits related to adaptability [16,19,20]. Other studies evaluated the efficacy of SSRIs using some anxiety scores. It has been demonstrated that patients who used SSRIs for moderate-to-severe form of anxiety disorders recorded an improvement in their anxiety scores compared to placebo on a short-term basis [12,14–16,20].

Moreover, it has also been explained that the improvement of anxiety symptoms with the administration of SSRIs was mainly correlated to psychic manifestations, while the improvement of psychosomatic symptoms was reported to be to a lesser extent [13,16,24]. In spite of all these benefits of SSRIs, Some reports demonstrated that response to SSRIs might suffer from variation between patients [17,19,25]. Furthermore, the efficacy of SSRIs was not linearly correlated to its blood level. There is also a gap in the literature on the effective blood level for SSRIs to exert their anxiolytic effect [18–20,26]. Some other pharmacological classes are currently proposed to be used in combination with SSRIs to treat anxiety [12,19,27]. The most suggested classes are atypical antipsychotics as well as anticonvulsant agents. However, further research is required to establish their benefit [14,15,19,28].

Conclusion

SSRIs proved to have a significant role in the management of anxiety disorder, especially anxiety that is correlated to depressive disorders. SSRIs showed a better safety profile compared to conventional agents used to treat anxiety previously, such as benzodiazepines and tricyclic anti-depressant. However, the effect and safety of SSRIs on a long-term basis requires further exploration. Future studies are needed to evaluate the use of newer agents of SSRIs in the treatment of anxiety and if their effect can be improved in terms of somatic symptoms compared to older agents of SSRIs. Also, the safety profile of newer agents should be tested in comparison to older SSRIs.

List of Abbreviations

SNRI Serotonin-norepinephrine reuptake inhibitors
SSRI Selective Serotonin Reuptake Inhibitors

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Consent for publication

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