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Role of Omega 3 Fatty Acid as an Adjunct Treatment to Depression in Different Age Groups of the Patient Population - A Current Literature Review

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Introduction: Depression is a widespread problem that affects individuals of all ages. This study looks at the use of omega-3 polyunsaturated fatty acids (PUFAs) as an additional therapy for depression in people of different ages. Depression has an impact on everyone, from youth to the elderly, causing therapeutic concerns such as treatment resistance and recurrence. Omega-3 PUFAs, which may be found in fish and flaxseed, are important because of their impact on neurochemistry, inflammation, and neuroprotection. While pharmacotherapy, including antidepressants, has proven beneficial for many, the likelihood of remission and recurrence remains substantial. In recent years, there has been a growing interest in the potential role of omega-3 polyunsaturated fatty acids (n-3 PUFAs) in mitigating depressive symptoms. The primary constituents of n-3 PUFAs are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Understanding the potential of omega-3 PUFAs across the lifespan can help address the multifaceted challenges posed by depression and improve mental health outcomes for diverse age groups.
Objectives: This review aims to assess the role of omega-3 fatty acids in depression treatment across different age groups: children and adolescents, adults (18–60), and the elderly (60+). It investigates the effectiveness and potential differences in omega-3 supplementation among these age cohorts.
Methods: A comprehensive literature search was conducted from 2003 to 2023 using PubMed, Google Scholar, and EMBASE, using specific keywords. Studies with inadequate age group information or Omega-3 intervention were excluded.
Results: In children and adolescents, several studies indicate a positive association between omega-3 supplementation and improved depressive symptoms. In adults, results are mixed, with some studies showing benefits while others do not. In the elderly, omega-3 PUFAs appear to have a more consistent positive effect on depression. In contrast, a consistent positive association was observed in the geriatric population, suggesting that Omega-3 PUFAs may hold particular promise in the treatment of depression among older adults. However, variations in methodology, dosage, and study populations contribute to these mixed findings.
Conclusions: Omega-3 PUFAs show promise as an adjunct therapy for depression across different age groups. Further research with standardized methodologies and larger sample sizes is needed to clarify their role and establish optimal dosage guidelines. Omega-3 PUFAs should be considered as a potential complement to conventional depression treatments, emphasizing the need for personalized approaches in depression management.

Disclosure of Interest: None Declared

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Clinical Benefits, efficacy and tolerability of slowly titrated vortioxetine oral drops solution

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Introduction: Vortioxetine is mainly prescribed as oral tablets, usually starting at 5-10 mg per day, and is well tolerated by most patients. However, some patients may experience side effects, the most common of which is nausea, which occurs in 20.9-31.2% of people treated with doses of 5-20 mg/day (Baldwin et al, J Psychopharmacol. 2016;30:242-52). In some countries, vortioxetine is also available as an oral solution (1 drop = 1 mg), which allows a very slow titration schedule that may improve tolerability.
Objectives: To evaluate whether vortioxetine oral drop solution, started with 1-2 drops (1-2 mg per day) and increased by 1-2 drops per day to 10-20 drops (10-20 mg), is associated with better tolerability and a lower risk of nausea than that observed with oral tablets started with 5-10 mg per day, while maintaining efficacy. To provide pilot data for the design of a multicentre, prospective study.
Methods: Retrospective, single-centre, observational study. Participants were 58 consecutive patients (mean age 45 + 17 years, 55.2% female) treated with vortioxetine for a depressive episode. Vortioxetine was initiated and titrated up to 1 drop (1 mg) per day in 58.6% of subjects, and initiated and titrated up to 2 drops in 41.4% of subjects. Tolerability was assessed at all visits. CGI and MADRAS scores were recorded at the following time points: T0-baseline, T1=week 1, T2=week 2, T3=week 4, T4=week 8). Comparisons were made using repeated measures ANOVA with Bonferroni correction.
Results: Nausea was reported by 8 subjects (13.8%) at T1, 4 subjects (6.9%) at T2, 1 subject at T3 (1.7%) and none at T4. Other adverse reactions (mainly dizziness, pruritus/itching, vomiting, diarrhoea, and xerostomia) were reported by a total of 6 subjects (10.3%) at T1, none at T2 and T3, and 1 subject (1.7%) at T4. The maximum dose administered was 20 mg in 75.9% of patients. No patients discontinued vortioxetine due to adverse events, but vortioxetine was discontinued prior to T4 (8 weeks of treatment) in 2 subjects due to lack of efficacy. The mean CGI at baseline was 4.3 ±0.8. The mean value decreased to 3.9±0.7 at week 1 and to 3.4±0.6, 2.7±0.6, 1.9 ±0.5 at weeks 2, 4 and 8, respectively. All differences were statistically significant ($p<0.001$) compared to baseline. Also from week 2, all scores were statistically significant compared to all previous assessments. The total MADRS score decreased from 28.3±4.6 at baseline to 24.9±4.2, 20.9±4, 16.3±3.6 and 10.9±3 at weeks 2, 4 and 8, respectively. A significant decrease in MADRS total score was observed at each time point ($p<0.001$) compared to baseline and previous assessments.