

RE: Manuscript NO: 05198253

Title: New-onset depression after hip fracture surgery among older patients: effects on clinical outcomes and what can we do?

Editorial Office comments:

This review summarized the risk factors and associated clinical outcomes of postoperative hip fracture depression (PHFD), and analyzed the optimal options for intervention in PHFD. The topic is within the scope of WJP. (1) Classification: Grade B; (2) Summary of the Peer-Review Report: The review has been carefully revised by the authors following reviewer's comments. The general layout might be re-shaped to highlight the psychological consequence of hip fracture surgery or related trauma. The hypothesis of the review should be ideally presented in a flow-chart. Besides, psychological/pharmacological intervention on the disorder should be emphasized. All the questions raised by the reviewer should be answered; (3) Format: There are one table and three figures; (4) References: A total of 96 references are cited, including 31 references published in the last 3 years; (5) Self-cited references: No self-cited references; (6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially those published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately. 2 Language evaluation: Classification: Grade A. The authors provided English Editing Certificate. 3 Academic norms and rules: The conflict-of-interest disclosure form uploaded by the authors is not correct. The signed copyright license agreement has not been uploaded. Please upload the two files when submitting the revised manuscript. No academic misconduct was found by the Google search. 4 Supplementary comments: This is an invited manuscript. No financial support was obtained for the study. The topic has not previously been published in the WJP. 5 Issues raised: The revised review is well written. The academic editor does not have further comments. 6 Re-Review: Not required. 7 Recommendation: Accept after minor revision.

Response to Editor Office: Thank you for your letter and the reviewers' comments concerning our manuscript. These comments have been valuable in ensuring we produce a high-quality manuscript and have also been informative in guiding our review. We have reviewed the comments carefully and have made corrections with the hope that they meet the reviewers' standards (Adding a paragraph of text, adjusting the layout of the article, and adding a flowchart). We have answered the reviewer's comments carefully and step by step as follows. Revised portions are marked in **blue** throughout the paper, and changes to the manuscript are also highlighted with **red** text. In the meantime, we've got all the necessary documents ready.

Once again, we appreciate the reviewers' and editor's careful review of our work and thank you for your comments and suggestions.

Reviewer(s)' Comments to Author:

Comments to the Author:

The authors have made a nice review regarding the involvement of depression in old patients after hip fracture surgery, and comments are as follows:

Thank you for your kind comments, we have carefully revised the manuscript according to your comments and added additional data that we believe further supports our conclusions. Below are the point-by-point responses to your critiques.

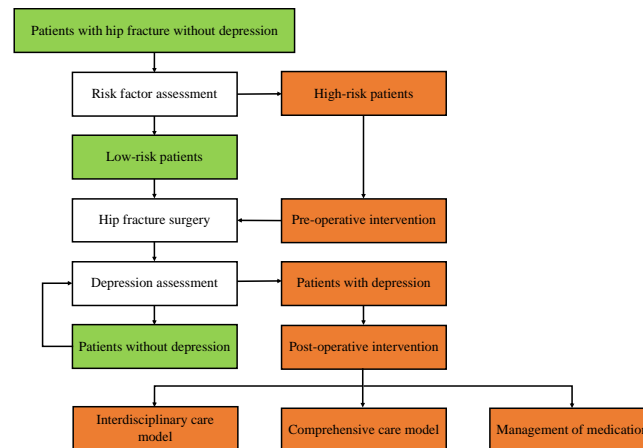
Q1. The general layout of the manuscript might be re-shaped to the form which highlights the psychological/ psychiatric consequence of hip fracture surgery or related trauma. The reader might be more interested in the pathogenesis of depression, and the therapeutic effects of antidepressant medication or psychotherapy.

Response 1: Thanks for your kind suggestion. The psychological/psychiatric consequences of hip fracture surgery or related trauma also determine the formation of postoperative depression, which is actually one of the mechanisms for the formation of depression. At your suggestion, the chapter on psychological changes and mechanisms of depression after hip fracture surgery has been placed first (just after the search strategy) to highlight its importance. We added a section describing the possible psychological effects after hip fracture, which is one of the mechanisms of depression.

“Look at it from a macro perspective, the changes in all aspects of life brought about by the hip fracture operation will also have varying degrees of psychological impact. For example, fear of becoming too dependent on caregivers and placing too much burden on family members, fear of the body will not be able to function as before, and loss of hope, confidence, or anxiety about the future life, feeling lonely and isolated because their daily activities are restricted and fear of falling again or even death. These psychological changes after surgery all contribute to the formation of depressive symptoms to a certain extent.”

Q2. The authors might put forward a hypothesis of depression after the surgery and the antidepressant effect on the post-operation process, ideally, in a flow-chart. This chart might be based on related theories. Then they might describe the related studies under their framework, and to conclude accordingly.

Response 2: We thank you very much for pointing out this shortcoming of our manuscript. Readers can better understand the possible clinical effects of this article with a hypothesis of pre- and post-operative process. Therefore, we have added a flow-chart to describe our thoughts on the diagnosis and treatment of PHFD for your reference.



Q3. The authors might emphasize the psychological/ pharmacological intervention on the disorder or surgical consequence. The psychological portion of the manuscript is small, which can be fully addressed (further). More clinical study in this aspect can be highlighted.

Response 3: Thanks for your advice. I have been deeply aware that although our article introduces three kinds of interventions to treat PHFD, it does not present the specific psychotherapy methods to the reader. However, unfortunately, after extensive literature review, we have not yet found clinical guidelines for pharmacological and psychotherapy for PHFD patients. However, since patients after hip fracture are frail elderly, psychotherapy for elderly patients with depression can also be appropriately adopted. At the end of the chapter of intervention, we added "Psychological intervention" to introduce the commonly used methods to treat depression in the elderly.

“Psychological intervention

So far, we have not found an article demonstrating a specific psychotherapy for PHFD or a controlled trial to verify its effectiveness. But given the characteristics of patients after hip fracture, which is that most patients are frail and elderly, some psychological treatment methods for elderly patients with depression can also be appropriately adopted. Commonly used and proven psychotherapeutic methods include : cognitive behavior therapy (CBT), behavioral activation therapy (BAT), interpersonal psychotherapy (IPT), problem-solving therapy(PST), Life-review therapy and non-directive counseling[1]. CBT is a widely used technique in the treatment of depression, and its methods are constantly being innovated to apply to different types of depression patients. But the core of it is the therapist through therapeutic interactions and topics of discussion, use a psycho-educational approach, and teach patients new ways of coping with stressful situations to modify patient’s

dysfunctional beliefs (cognitive restructuring) and change their current behavior as well as future functioning. Huang et al.[2] demonstrated the effectiveness of CBT through three-step process (1. behavioral scheduling 2. cognitive assessment and restructuring 3. altering dysfunctional beliefs and perform problem-solving strategies) in elderly. In PST, patients learn how to systematically solve their problems in a number of steps. Kiosses et al.[3] integrated a problem-solving approach (situation selection, situation modification, attentional deployment, cognitive change, and response modulation) with compensatory strategies, environmental adaptations, and caregiver participation to improve emotional regulation 74 older adults with depression and found that the participants in PATH had significantly greater reduction in depression. Life-review therapy is mainly used in older adults and is aimed at on the balance of positive and negative reminiscences, the redefinition of negative experiences, and elaboration of memory. The result of Preschl et al.'s research indicated that the life-review therapy could be recommended for depressive older adults. in the field of psychotherapy for PHFD, there is still an urgent need for a large number of experimental data to support the effectiveness of these methods. ”

1 Cuijpers P, Quero S, Dowrick C and Arroll B. Psychological Treatment of Depression in Primary Care: Recent Developments. *Curr Psychiatry Rep* 2019; 21: 129 [PMID: PMC6875158 DOI: 10.1007/s11920-019-1117-x]

2 Huang TT, Liu CB, Tsai YH, Chin YF and Wong CH. Physical fitness exercise versus cognitive behavior therapy on reducing the depressive symptoms among community-dwelling elderly adults: A randomized controlled trial. *Int J Nurs Stud* 2015; 52: 1542-1552 [PMID: DOI: 10.1016/j.ijnurstu.2015.05.013]

3 Kiosses DN, Ravdin LD, Gross JJ, Raue P, Kotbi N and Alexopoulos GS. Problem adaptation therapy for older adults with major depression and cognitive impairment: a randomized clinical trial. *JAMA Psychiatry* 2015; 72: 22-30 [PMID: PMC4583822 DOI: 10.1001/jamapsychiatry.2014.1305]