

Traumatic Injuries and Early Pharmacological Intervention for Psychological Challenges: Is this the Best Option?

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ABSTRACT

Patients with traumatic injuries experience various psychological symptoms similar to depression, which do not meet the criteria for such diagnosis. Antidepressant medications should not be prescribed except after the correct diagnosis of depression, made by a qualified mental health professional. Psychological interventions should be used as first line of care for most injured patients. Psychological interventions, unlike antidepressants, have proven long-term efficacy and have been adequately established. At the same time, antidepressants may have known or lesser-known side effects with long-term implications on one's mental health and should only be used as the second line of intervention for patients with traumatic injuries.

SPANISH TRANSLATION

Los pacientes con lesiones traumáticas experimentan diversos síntomas psicológicos similares a la depresión, que no cumplen los criterios para dicho diagnóstico. Los medicamentos antidepresivos no deben recetarse excepto después de un diagnóstico correcto de depresión, a menudo realizado por un profesional de la salud mental calificado. Las intervenciones psicológicas deben utilizarse como primera línea de atención para la mayoría de los pacientes lesionados. Las intervenciones psicológicas, a diferencia de los antidepresivos, han demostrado eficacia a largo plazo y se han establecido adecuadamente. Al mismo tiempo, los antidepresivos pueden tener efectos secundarios conocidos o menos conocidos con implicaciones a largo plazo en la salud mental y solo deben usarse como segunda línea de

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Traumatic injuries are some of the leading causes of disability. They have been identified as the largest cause of trauma-related psychiatric disorders, making them a serious public health concern. A study completed at Level 1 Trauma center, in Qatar found that 13% of the patients with traumatic injuries suffered from post-traumatic stress disorder (PTSD), and a larger number of these patients suffered subthreshold psychological distress symptoms.¹ Psychological impact of traumatic injuries can cause coping difficulties, interfere with the treatment efficacy, and sometimes be debilitating for life.

In recent times there has been an increased interest in the holistic care of individuals. However, the diagnosis of psychiatric disorders requires one to meet the appropriate diagnostic criteria as having been specified by the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) classification.

It has been observed that depression as a disorder is often misdiagnosed in patients with traumatic injuries and is followed by premature use of antidepressants. A large number of patients with traumatic injuries may show signs of being emotionally lowered or suffer from subclinical depression. These patients do not meet the minimum diagnostic criteria of severity, number, or duration of symptoms for making a diagnosis of major depression. Many patients with traumatic injuries who suffer neurological deficits, amputation, bodily disfigurement, are assaulted or have experienced the death of a co-passenger during a motor vehicle crash (MVC) experience grief. Acute grief during the period immediately following a loss often results in a loss of regulation. This can be observed as increased intensity and frequency of sadness, anxiety and/or anger, emotional numbness, and difficulty

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in concentrating, in addition to dysregulation in sleep and appetite. DSM-5 has added a new category of complicated grief disorder which excludes bereaved persons from being diagnosed with major depression until two months from the start of mourning.

Patients of traumatic injuries may react to these stressors by using various defense mechanisms like withdrawal, conservation, regression, denial, anger, hopelessness, and anxiety, which makes psychological support very relevant for them. Subthreshold symptoms may sometimes develop into an episode of major depression and, therefore, cannot be ignored.

Antidepressants are sometimes prescribed by physicians to treat or prevent the symptoms of the psychological distress experienced by survivors of traumatic injuries. However, denovo

prescription of antidepressants in ICU is not recommended because of difficulty in diagnosing depression, especially in critical care settings, and lack of good quality evidence on the potential benefits and possibility of harm arising from these medications.

A prospective study of 76 intubated patients aimed at characterizing those who had been receiving antidepressants in critical care settings or hospitals was evaluated by hospital anxiety and depression scale (HADS) and fear questionnaire to assess panic attacks and phobias at 2 and 6 months after discharge from the intensive care unit. Patients prescribed antidepressants had a longer ICU/hospital length of stay and a higher prevalence of anxiety when alone, as suggested by the fear questionnaire. Investigators concluded that a higher prevalence of anxiety as indicated on fear questionnaire when performing activities alone was suggestive of a learned helplessness state rather than depression. It is possible to misdiagnose depression, especially in critically ill intubated and long-stay patients, due to the presence of overlapping clinical syndromes and the use of soft clinical criteria used for diagnosis.²

A retrospective pilot study evaluated the effectiveness of de novo initiation of antidepressants in preventing or mitigating post-ICU depression from a cohort of 2,988 patients admitted to ICU. Investigators used the PHQ-2 depression scale to compare the prevalence of depression with historical controls from published systematic reviews and the Cochrane controlled trials registry (1970–2015). Only 69 patients out of 2,988 admissions had antidepressant medication initiated for the first time in ICU. However, the prevalence of post ICU depression in these patients was 26% [95% CI (27.6%, 51.6%)], which was statistically similar to that in historical controls, 29–34% regardless of medication use. Thus, starting antidepressants during acute physical illness is not recommended to prevent post-ICU depression until high-quality-controlled trials establish the clinical effectiveness.³

Without proven benefits, initiating antidepressants in patients will only expose them to adverse effects, drug interactions, withdrawal, and serotonin syndrome. A systematic analysis reviewed published literature for the evidence of benefit or harm in patients who were prescribed selective serotonin reuptake inhibitors (SSRI) and serotonin-norepinephrine reuptake inhibitors (SNRI). Researchers found only one case study with potential benefit but several with reports of harm in SSRI/SNRI users. The potential harm could relate to serotonin syndrome, postoperative renal dysfunction, prolonged ventilation, increased procedural bleeding risk, and an increase in all-cause mortality.⁴ Also, the chances are high that the patient might show non-compliance to these antidepressants after discharge and once he/she feels more in control of the physical condition.

Psychotherapeutic interventions such as cognitive therapy have an efficacy similar to antidepressants in treating depression, and the chances of relapse are far less when treatment is discontinued.⁵ A meta-analysis constituting seven high-quality studies concluded that the participants who received the psychotherapeutic intervention have a relatively low risk (0.70) of developing a major depressive disorder and have a significant positive impact on subthreshold depression.⁶

Psychotherapy should not be chosen as an option only due to the aversive after-effects of antidepressant use but rather due to there being a benefit in this treatment option. Early psychological intervention while the patient is still in the ICU helps trauma patients recover from the stressful experience earlier and significantly reduces the need for future psychiatric care.⁷ Such studies and more prove how psychological interventions are capable of producing significant results but without adverse effects of pharmacological treatment.

CONCLUSION

- The existing evidence suggests that for patients who have undergone traumatic injuries, an early (less than 2 months) diagnosis of depression should be avoided.
- The authors suggest avoiding early use of antidepressants if the patient appears to be emotionally lowered or suffering from subclinical symptoms of depression.
- Mental health experts should be involved early in the care of these patients.
- Psychological support using counseling or psychotherapy should be used as the first line of treatment when caring for patients who struggle with subthreshold depression or acute-depression post-traumatic injuries.

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REFERENCES

1. Agarwal TM, Muneer M, Asim M, et al. Psychological trauma in different mechanisms of traumatic injury: a hospital-based cross-sectional study. *Plos One* 2020;15(11):e0242849. DOI: 10.1371/journal.pone.0242849
2. Jones C, Skirrow P, Griffiths RD, et al. The characteristics of patients given antidepressants while recovering from critical illness. *Bja Br J Anaesth* 2000;84(5):666. DOI: 10.1093/bja/84.5.666
3. Haines D, Hild J, He J, et al. A retrospective, pilot study of de novo antidepressant medication initiation in intensive care unit patients and post-ICU depression. *Critical Care Res Pract* 2017;2017:5804860. DOI:10.1155/2017/5804860
4. Kelly JM, Rubinfeld GD, Masson N, et al. Using selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors in critical care. *Crit Care Med* 2017;45(6):e607–e616. DOI:10.1097/ccm.0000000000002308
5. DeRubeis RJ, Zajecka J, Shelton RC, et al. Prevention of recurrence after recovery from a major depressive episode with antidepressant medication alone or in combination with cognitive behavioral therapy. *Jama Psychiat* 2020;77(3):237–245. DOI:10.1001/jamapsychiatry.2019.3900
6. Cuijpers P, Smit F, Straten AV. Psychological treatments of subthreshold depression: a meta-analytic review. *Acta Psychiat Scand* 2007;115(6):434–441. DOI:10.1111/j.1600-0447.2007.00998.x
7. Peris A, Bonizzoli M, Iozzelli D, et al. Early intra-intensive care unit psychological intervention promotes recovery from post traumatic stress disorders, anxiety and depression symptoms in critically ill patients. *Crit Care* 2011;15(1):R41-R41. DOI:10.1186/cc10003