

## A Three-dimensional Approach to an Elderly Patient with Post-operative Psychiatric Disorder

Dear Editor,

I read with great interest the paper by Gökdemir et al. entitled "Suicide by an Elderly Patient with Ischemic Heart Disease: Case Report" in which the authors described the suicide of an elderly patient who underwent coronary artery bypass graft surgery after an acute myocardial infarction.<sup>[1]</sup> In one previous study, 1-2% of the elderly population was found to be suffering from major depression at any given time; up to 20% of elderly adults have significant depressive symptoms;<sup>[2]</sup> and major depression is associated with poor outcomes for underlying medical problems and increased risk for suicide.<sup>[3]</sup> As the authors emphasized, acute myocardial infarction is associated with anxiety, depression, and low quality of life. There is no doubt that an acute myocardial infarction and major surgery may trigger an acute stress reaction in an elderly patient. However, acute alteration of consciousness, cognition, perception, and even mood in an elderly patient after a major surgery is more likely to be related to delirium. Moreover, the hypoactive subtype of delirium may easily be confused with depression, and in hospitalized elderly patients, the presence of dysphoria may also be a manifestation of delirium.<sup>[4]</sup> Additionally, depression is characterized by a more generalized or chronic low-mood state, with an onset of weeks or months, while the drugs used in the treatment of depression, such as selective serotonin reuptake inhibitors and tricyclic antidepressants, require weeks to be effective. Furthermore, tricyclic antidepressants are strongly anti-cholinergic, and at relatively high doses, can cause delirium. Symptoms of dementia are easily confused with depression and delirium as well. However, symptoms of dementia develop slowly, and dementia seems less likely in cited cases that had no previous psychiatric symptoms.

Delirium, which is a potentially fatal complication, has been defined as a transient mental syndrome of acute onset characterized by global impairment of cognitive functions, a reduced level of consciousness, attentional abnormalities,

increased or decreased psychomotor activity, and a disordered sleep-wake cycle. Post cardiac surgery delirium is a well-known clinical entity with a reported incidence ranging from 3.1 to 32%.<sup>[5]</sup> Patients older than 70 years are prone to developing post-operative delirium. Cardiopulmonary bypass is also associated with neurocognitive changes. Alteration of time and space is very frequent, and encountering "run-away" patients with delirium who wander into different wards and corridors, or even onto roofs, of hospitals is not uncommon. Management strategies include pharmacologic and nonpharmacologic interventions. Aggravating events, such as pain, infection, or metabolic abnormalities, should be corrected, and haloperidol is traditionally used for decreasing the duration and severity of delirium. Physical restraints are often used as a last resort with patients with severe delirium.

In conclusion, postoperative delirium should be considered in the differential diagnosis of post-operative elderly patients with acute mood, cognition, and perception alterations. Sometimes it is not easy to differentiate between the three Ds (depression, dementia, and delirium) in the geriatric population. When diagnosis is uncertain, it would be wise to treat delirium first.

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Authors reply,

Dear Editor,

We thank our colleague for his letter to the editor regarding our case presentation.

Sincerely,

On behalf of the authors,

Dr. Mehmet Tahir Gökdemir