

## POSTOPERATIVE DELIRIUM IN PATIENTS AFTER HIP FRACTURE TREATMENT

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Working as a team with patients recovering after hip replacement procedure we have encountered with a problem of postoperative delirium. Also, many previously published articles suggest that there is a statistically significant number of patients suffering of delirium in the hip fracture postoperative timeframe (Wang et al. 2018). Percentage of patients suffering postoperative delirium varies from 9.5% (Brauer et al. 2000) to 35% (Mosk et al. 2017). Delirium, depression and dementia are reported to be the three commonest psychiatric disturbances in elderly with hip fracture (Holmes & House 2000). So, this subject appears to be of an interest to different specialties such as trauma surgeons, orthopedists, anesthesia and rehabilitation specialists. Postoperative delirium is acute brain dysfunction after surgery, which is caused by maladaptation of the brain to the postoperative surgical stress. The incidence and clinical importance of postoperative delirium after hip fracture surgery have increased along with the aging of overall population (Zywił et al. 2014). Almost half of all hip fractures occur in patients aged 80 or over. An estimated 18% to 28% of older hip fracture patients die within one year of their fracture (Wehren & Magaziner 2003). In common with other general hospital populations, the elderly hip fracture population has high reported rates of psychiatric illness, which suggest an adverse effect in several important outcomes. Delirium, depression and dementia are reported to be the three commonest psychiatric disturbances in elderly with hip fracture (Holmes & House 2000). Delirium, as a concept, stretches back to the age of Hippocrates and has survived repeated attempts of definition and redefinition over the past 2000 years. It is a relatively common disorder, especially among elderly people with physical illness. It has a high morbidity and mortality, is often under-recognized and undertreated. Although it is increasingly recognized that delirium is a serious complication of physical illness there has been relatively little research in this area. Perhaps this is due to the fact that in clinical practice, delirium is seen primarily by consultation-liaison psychiatrists and consultation geriatricians, who may find it difficult to set up a study outside their own ward. Our recommendations for future studies would be the following: To assess the limitation concerning age structure of study

groups it is recommended to conduct studies in patients under 65 years of age. That will make it possible to compare with previous results and determine if the prevalence is the same in all age groups. To assess the limitation of varying percentage of patients suffering postoperative delirium after hip fracture treatment in different previous studies a meta-analysis should be conducted, as it would assure the correct results in this matter. And last, but not the least studies in resolving pathophysiological mechanisms should be more encouraged as it would result in solving the problem of postoperative delirium after hip fracture treatment, meaning it could be a possibility to find the correct treatment or prevention protocols.

There are a few conclusions made after reading the available studies and having experience in practice. As previously published articles suggest that there is a statistically significant number of patients suffering of delirium in the hip fracture postoperative timeframe it appears a topic of interest for many specialties. It is obviously a problem for postoperative care in patients suffering this condition, especially as population age is increasing. Percentage of patients suffering delirium postoperative varies from 9.5% to 35% and there is a need for conducting large studies such as meta-analysis. Also, there is a necessity and a great potential for resolving the pathophysiological mechanisms should be more encouraged as it would result in solving the problem of postoperative delirium after hip fracture treatment, meaning it would be a possibility to find the correct treatment or prevention protocols. In spite of the fact that post-operative delirium is a well recognized syndrome its pathophysiology remains poorly understood. Apart from that, very high numbers of under-recognition from both nursing and medical staff have been reported. These data lead to the disappointing fact that a large number of post-operative delirium are not prevented, although they could have been so, nor are they recognized and treated early.

**Acknowledgements:** None.

**Conflict of interest :** None to declare.

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