



# Psychotropic Drugs and the Risk of Fracture in Old Age

**Viorel Oltenacu<sup>4</sup>, Paul Dan Sîrbu<sup>2</sup>, Razvan Tudor<sup>3</sup>, Alexandru Bogdan Ciubară<sup>1</sup>,  
Roxana-Cristina Damaschin<sup>4</sup>, Anamaria Ciubară<sup>5</sup>**

<sup>1</sup>Department of Morphological and Functional Sciences, Dunarea de Jos University, Galati, Romania

<sup>2</sup>Department of Orthopaedics and Traumatology, UMF Iasi, Romania

<sup>3</sup>Department of Orthopaedics and Traumatology, County Emergency Hospital, Vaslui, Romania

<sup>4</sup>Department of Orthopaedics and Traumatology, "Sf. Ap. Andrei" Hospital, Galați, România

<sup>5</sup>Department of Psychiatry, Dunarea de Jos University, Galati, Romania

## Email address:

abciubara@yahoo.com (A. B. Ciubara)

## Abstract:

*Introduction* Fractures in old age is a major health problem with considerable disability and mortality. Antipsychotic drugs (APs) have been associated with falls and fractures in elderly individuals.

*Methods* The study performed was a retrospective analysis with 97 participants. Subjects were everyone over the age of 65 with fractures radiologically confirmed, hospitalized in Department of Orthopaedics and Traumatology "Sf. Ap. Andrei" Galați, România, in May 2017. The objective was to evaluate the association between APs and the risk of fractures in elderly persons.

*Results and discussion* 16 participants with confirmed fracture (16.50%) was associated with exposure to psychotropic medications. Those who took selective serotonin reuptake inhibitors (SSRIs), in particular, are linked to greater susceptibility to bone fractures: 10 out of 16 participants.

*Conclusion* The mechanism leading to this increased risk is unclear. Clinical studies examining causality or mechanisms of the observed association between antipsychotic drug use and excess risk of fractures are needed. Confounding by indication, other drugs used or comorbidity cannot be excluded, this association is relevant for clinical practice because fractures and antipsychotic drug use are prevalent in vulnerable older individuals.

## Keywords

Psychotropic Drugs, Risk of Fractures, Elderly, Hip Fractures