

Risk Factors Associated with Gastrointestinal Complications Caused by Nonsteroidal Anti-Inflammatory Drugs (NSAID)

Viola Cala^{1*}, Floreta Kurti², Elizana Petrela³, Elona Mollsi⁴

¹ Service of Radiology, University Hospital Center “Mother Theresa” Tirana, Albania

²Service Gastrohepatology, University Hospital Center “Mother Theresa” Tirana, Albania

³Service of Statistics, University Hospital Center “Mother Theresa” Tirana, Albania

⁴Faculty of Medical Technical Science “Aleksander Xhuvani”, Elbasan, Albania

Abstract

Background: Nonsteroidal anti-inflammatory drugs (NSAIDs) are a significant cause of emergency hospitalizations and death. This study aimed to identify the most common risk factors associated with complicated gastrointestinal bleeding and/or complicated peptic ulcer caused by NSAIDs.

Aim: Our study aimed to know more about the risk factors associated with gastrointestinal complications caused by NSAIDs in the elderly population.

Material and methods: We have retrospectively evaluated the medical files of patients hospitalized at the General Surgery Service, University Hospital Center “Mother Theresa” Tirana, Albania with the diagnosis gastrointestinal bleeding (GIB) or peptic ulcer

for ten years, from 2011 until 2021. We evaluated 307 patients hospitalized with these diagnoses who had used NSAID or corticosteroids to treat rheumatic pathologies. We considered age, gender, family and personal history of peptic ulcer, concomitant diseases, medications used, and their duration for all patients.

Results: We identified 260 females (85.2%) and 45 males (14.8%), with a mean age of 68.4 years (SD +13.4). Ninety of the patients (29.5%) had used antiplatelet drugs as concomitant cardiovascular and cerebrovascular diseases in which, 37 patients (35.9%) of this group were with peptic ulcer and 53 patients (26.2%) were with GIB ($p = 0.05$).

Fifty-nine patients (19.3%) had used cortisone for rheumatic disease, in which 13 patients (12.6%)

Address for correspondence: Viola Cala*, Service of Radiology, University Hospital Center “Mother Theresa” Tirana, Albania. Email: violacala08@gmail.com

were with peptic ulcer and 46 patients (22.8%) were with GIB ($p = 0.034$).

One hundred twenty-five patients (78.1%) were diagnosed with Diabetes Mellitus (DM), 43 of whom (71.15) had peptic ulcer and 82 patients (80.4%) were with GIB. All patients had used NSAIDs for over six weeks.

Conclusion: Age 65 years and above, cardiovascular and cerebrovascular diseases, antiplatelet drugs, DM, long-term use of NSAIDs, and corticosteroids are risk factors for the gastrointestinal complications associated with NSAIDs use. Family history of gastrointestinal bleeding, past history of peptic ulcers, and smoking are also risk factors. In our study, these findings were not statistically significant.

Keywords: risk factors, gastrointestinal bleeding, peptic ulcer, NSAID