**EFFICACY OF ASAP MULTIDISCIPLINARY ALGORITHM ON EARLY POSTOPERATIVE COMPLICATIONS IN ELDERLY INPATIENTS FOR HIP FRACTURE: A RETROSPECTIVE BEFORE-AFTER STUDY WITH INTERRUPTED TIME–SERIES ANALYSIS**

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**Conflicts of interest disclosure**

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**ABSTRACT**

**Background**: Hip fracture (HF) exacerbates loss of autonomy in the elderly. Several studies focus on improving outcome by intervening on one single aspect of perioperative management.1 We aimed to observe whether a multidisciplinary management algorithm rather than a single change to a single aspect of perioperative management had an impact on early 7-days postoperative complications (EPOCs). The implemented algorithm (“ASAP”=Advice, Surgery, Analgesia, and Pharmacology) included orthogeriatrician care, delay to surgery <12 hours (DOS), supra-inguinal fascia iliaca block (SFIB), and therapy’s adaptation, i.e. avoiding perioperative anti-cholinergic drugs.

**Methods**: Patients were divided in 2 cohorts according to date of admission. Pre-ASAP cohort included HF from January 1st, 2019, to December 31th, 2019; post-ASAP cohort included HF from January 1st, 2020 (date of ASAP implementation), to December 31th, 2020. After approval by our ethics board, a prospective before-after analysis of retrospective data was conducted assuming EPOCs as primary outcome. EPOCs were stratified according to Clavien-Dindo classification into minor (grade 1) and major (grades 2/3/4).2

**Results**: 249 consecutive patients admitted with HF were included in this before-after analysis. Interrupted time-series (ITS) and Kaplane-Meier analysis from 134 (pre-ASAP) and 115 (post-ASAP) patients demonstrate that ASAP algorithm reduces all EPOCs (Figure 1-2). Cox proportional-hazards models on qualitative and quantitative single-item analysis demonstrates that SFIB significantly reduces EPOCs and that therapeutic adaptation in patient's treatment increases EPOCs (Figure 3).

**Conclusions:** SFIB is the most effective aspect associated with EPOCs reduction in HF following the implementation of our multidisciplinary ASAP algorithm.

**References**:

1. Bhandari M et al., NEJM. 2017;377(21):2053-2062

2. Dindo D et al., Ann Surg 2004;240: 205–213



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