

E-026

## Changes In Osteopenia Severity In Pancreatobiliary Cancer Patients: A Comparative Study

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**Background** : Cancer cachexia, a devastating syndrome characterized by profound skeletal muscle atrophy, loss of bone mass, intestinal malabsorption is present in 63% of patients at diagnosis and 80% of patients as the disease progresses. In pancreatobiliary cancer patients, the degree of osteopenia, and the impact of osteopenia on the clinical outcomes of patients are important. The aim of this study is to analyze osteopenia in patients who underwent surgery due to pancreatobiliary cancer including elderly patients and neoadjuvant treatment patients.

**Methods** : From 2020 to 2021, the degree of osteopenia will be measured and analyzed in patients who underwent surgery for pancreatobiliary cancer. It is analyzed using the widely known method [obtaining the Hounsfield Unit average value using ROI at the same level (e.g., L3 spine level) on abdominal CT]. A total of 50 patients were included in the study, divided into three groups: upfront surgery patients, elderly surgery patients (Age > 75), and patients who received neoadjuvant treatment.

**Results** : Preoperative BMD values were found to be highest in the upfront surgery group, followed by the elderly surgery group, with the lowest BMD values observed in the neoadjuvant treatment group. When comparing the degree of recovery postoperatively, the upfront surgery group showed significant improvement in BMD levels at 6 months after surgery, with an increase from 191.4 HU to 242.9 HU. In contrast, both the neoadjuvant chemotherapy group and the elderly surgery group exhibited very low preoperative BMD values and a continued decline in BMD postoperatively. Specifically, the BMD in the neoadjuvant chemotherapy group decreased from 94.7 HU to 93.4 HU, while in the elderly surgery group, BMD decreased from 148.6 HU to 144.4 HU.

**Conclusions** : The findings suggest that patients undergoing general surgery for pancreatic cancer are more likely to experience recovery in bone mineral density postoperatively, whereas those in the elderly and neoadjuvant chemotherapy groups demonstrate a persistent decline in BMD, both preoperatively and postoperatively. Based on the results of analyzing the nutritional status of pancreaticobiliary cancer patients before and after surgery on the body, especially osteopenia, the effect of pancreatobiliary surgery and chemotherapy on the patients' mineral metabolism is confirmed.

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