

## AB184. Effect of body composition on short-term surgical outcomes post adrenalectomy

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**Background:** Body Composition factors including sarcopenia, visceral adiposity and high body mass index (BMI) have been widely reported to have detrimental effects on short term surgical outcomes in a variety of surgical procedures. Hence, this study aimed to investigate the impact of body composition on short-term surgical outcomes in patients undergoing adrenalectomy.

**Methods:** A retrospective study was conducted on 59 patients who underwent an adrenalectomy in Cork University Hospital from 2008–2019. Using computed tomography (CT) scans at the level of L3, skeletal muscle and adipose tissue areas (cm<sup>2</sup>) were mapped out to calculate Skeletal Muscle Index [(SMI), cm<sup>2</sup>/m<sup>2</sup>], visceral, subcutaneous and total adipose tissue Index (VAT, SAT,

TAT index, cm<sup>2</sup>/m<sup>2</sup>). Pre-defined cut-off values were utilised to determine sarcopenic status while medians were used as cut-offs for adiposity. Univariate logistic regression analyses were conducted to measure the association between body composition and post-adrenalectomy outcomes.

**Results:** Twenty-seven patients with complete data were included. Seventeen (62.9%) procedures were laparoscopic while 10 (37.1%) were open. Twenty-four (88.8%) benign cases and 3 (11.2%) metastatic cases were reported. Nine (33.3%) patients were sarcopenic. Complications rate were equal in both groups (33.3%, P=1.00), with surgical emphysema, fever and respiratory tract infections being reported. A longer length of stay was observed in the sarcopenic group (12.9 *vs.* 11.1 days, P=0.742). Sarcopenia was not significantly associated with surgical complications (OR=1.00, 95% CI: 0.146–6.853, P=1.00). However, a higher VAT index (OR=1.060, 95% CI: 0.898–0.990, P=0.019) and higher BMI (OR=1.248, 95% CI: 0.648–0.991, P=0.041) were significantly associated with an increased risk of surgical complications.

**Conclusions:** Increased adiposity and increased BMI are prognostic factors for short-term complications in patients undergoing adrenalectomy.

**Keywords:** Body composition; sarcopenia; surgical; complications

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