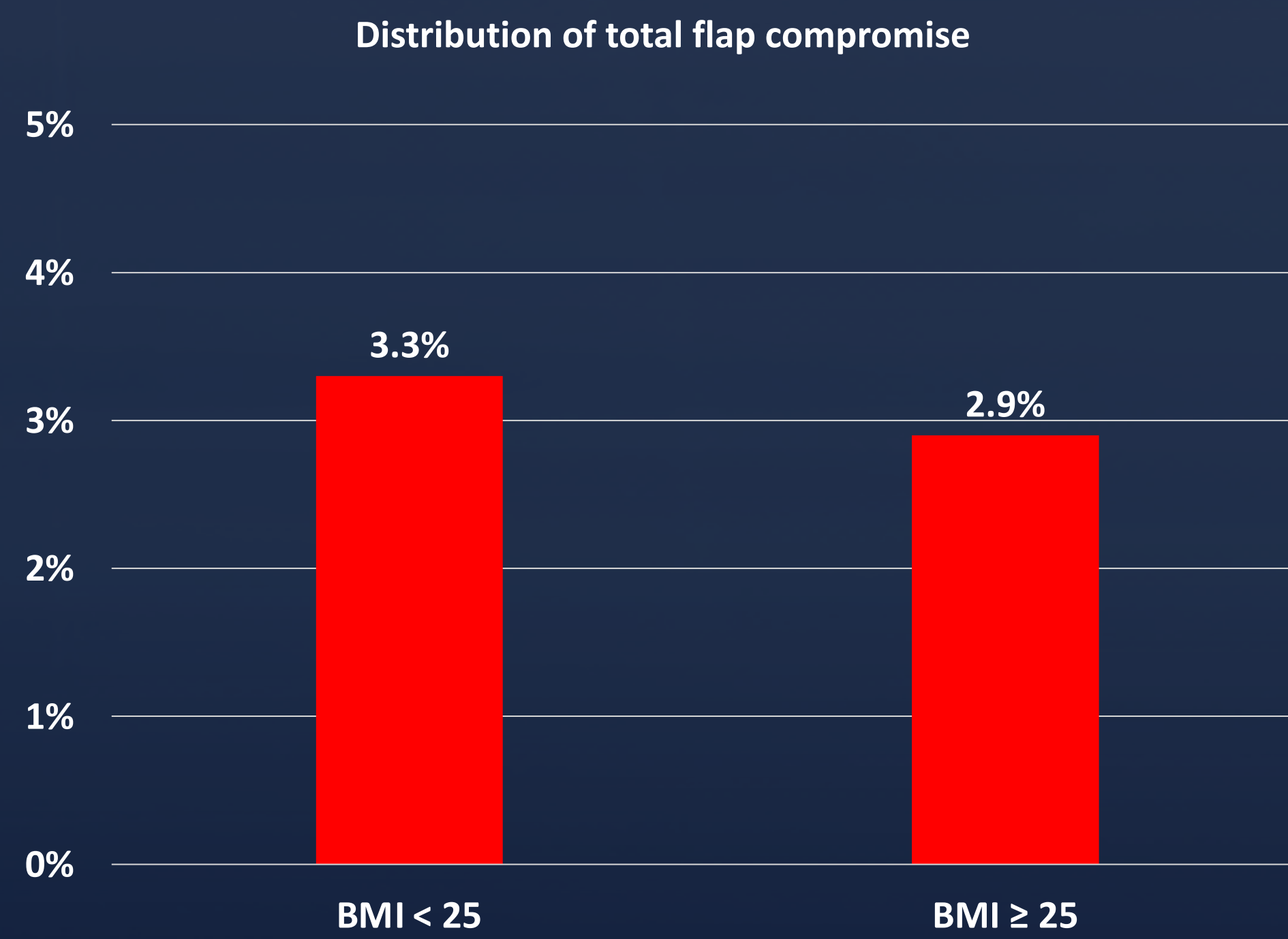
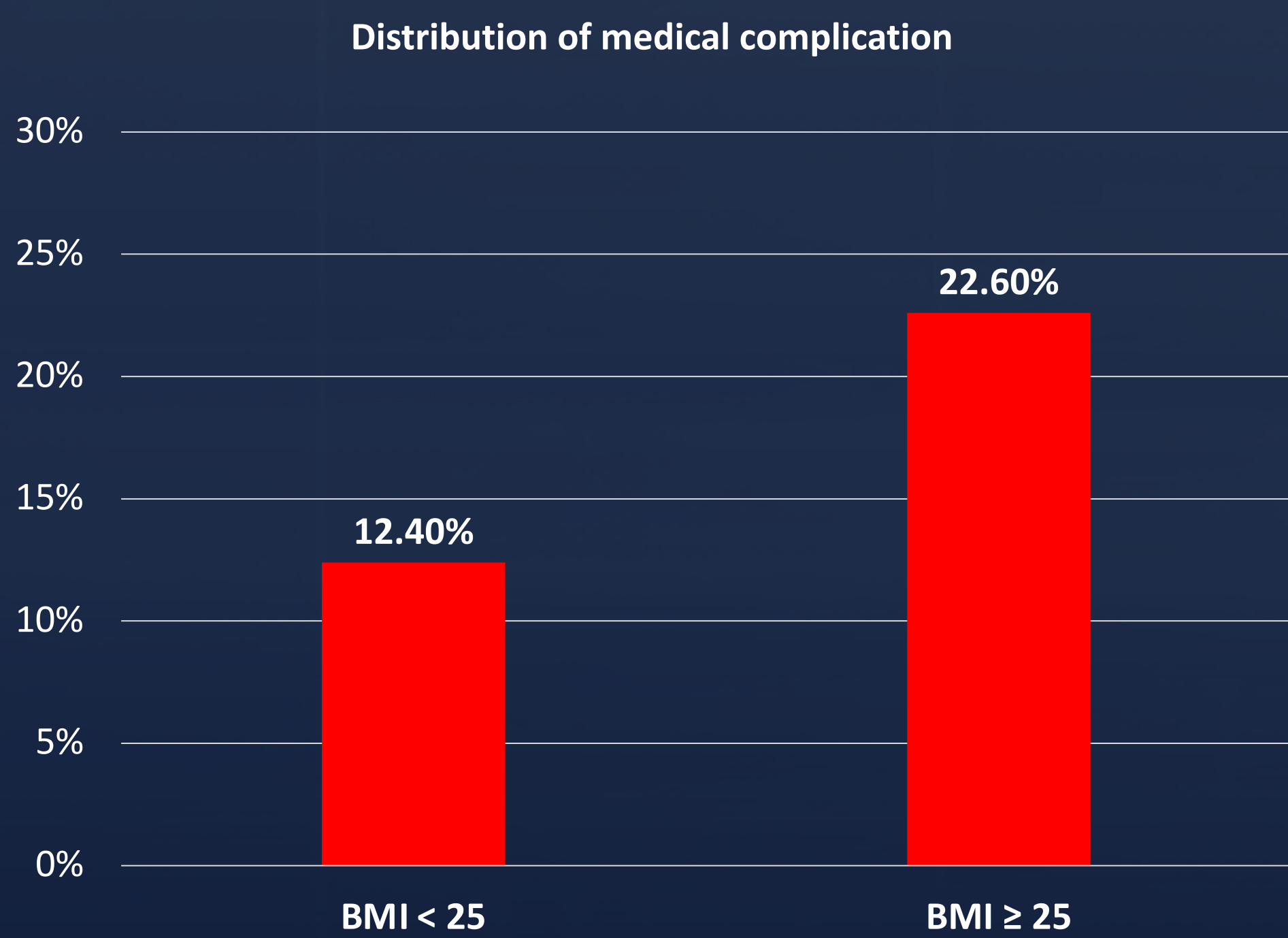
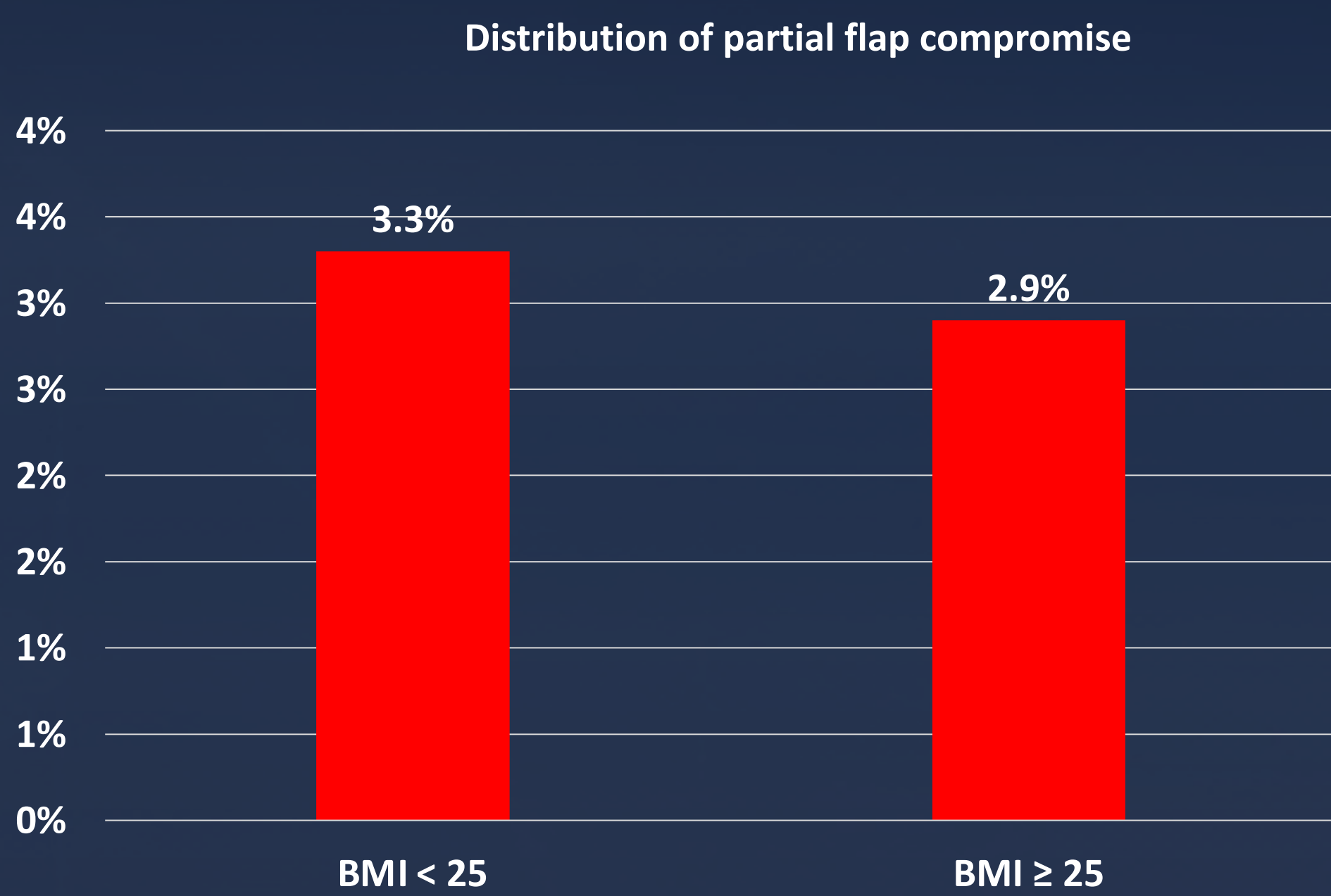
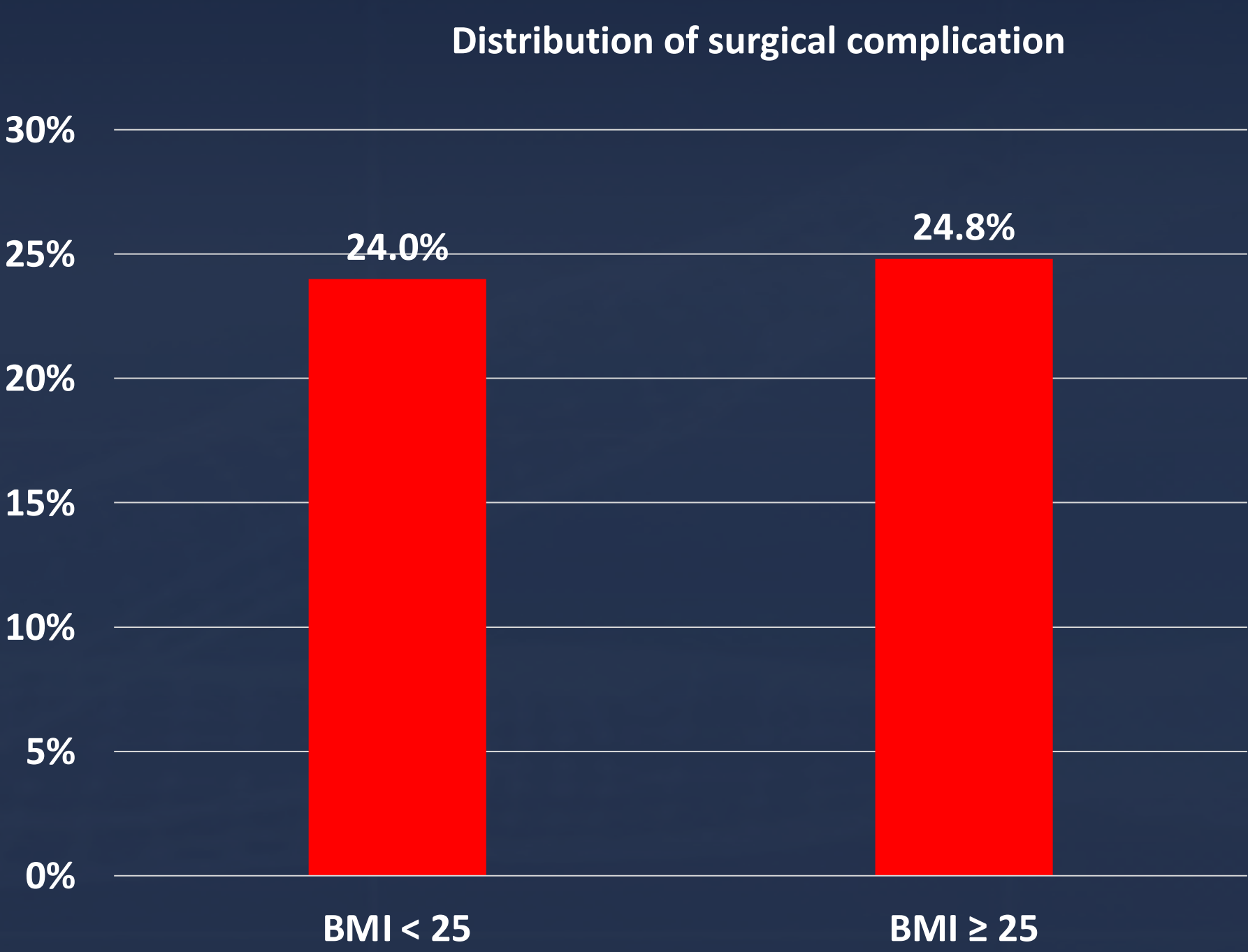


The Impact of Elevated BMI on Outcomes in Patients Undergoing Free Flap Reconstruction of The Head and Neck Region

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Purpose:
explore the association of surgical and medical outcomes with elevated BMI (BMI≥25)

Methods:
All patients who underwent head and neck reconstruction with free tissue transfer from September 2019 to September 2021 were included. Data were collected from a prospective database. The cohort was divided into two groups based on BMI cut-off point 25. The study outcomes were surgical or medical complications during hospitalization, total flap compromise, and partial flap compromise. Medical complications recorded were venous thromboembolism, pneumonia, cardiac event, delirium, and stroke, while the surgical complication included hematoma, neck cellulitis, salivary leak, purulent neck infection, and any donor or recipient site complication.



Results:
304 patients were included. Out of those (n=175, 57.57%) patients had a BMI≥25. The mean follow-up was 2.38 ± 3.97 months from the index surgery. The total and partial flap compromise rates were similar between the two groups (n=5, 2.94% vs. n=4, 3.25%, p=1.000) and (n=7, 4.12% vs. n=6, 4.88%, p=0.75), respectively. The medical complications within hospitalization were significantly higher in those with BMI≥25 (n=37, 22.56% vs. n=15, 12.4%, p=0.028), however, the surgical complications were similar between the two groups (n=42, 24.85% vs. n=30, 24%, p=0.86). Interestingly, patients with BMI<25 showed significantly higher rates of transfusion intraoperatively (n=11, 6.43% vs. n=21, 17.36%, p=0.003).

Conclusion:
The association between elevated BMI and developing medical complications was significant. However, overall flap partial compromise, flap total compromise, and surgical complication rates within hospitalization were similar. Patients with BMI<25 had increased rates of intraoperative transfusion.

