# PROSPECTIVE STUDY OF EFFICACY OF TROCAR PORT-SITE CLOSURE USING M-CLOSE DEVICES IN LAPAROSCOPIC SLEEVE GASTRECTOMY

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**OBJECTIVE: TO PRESENT THE EFFECTIVENESS OF THE M-CLOSE DEVICE IN OUR HOSPITAL IN THE SHORT AND LONG TERM (2 YEARS). EVALUATING THE RATE OF POST-SURGICAL COMPLICATIONS**

## MATERIALS AND METHODS

**Prospective, descriptive in our hospital**

**Use of M-Close Kit between January 2022 to January 2024**

**Patients who did not complete the 2-year follow-up were excluded. Demographic variables and short- and long-term complications were assessed.**

## M- CLOSE KIT




## RESULTS

**35 (29.66%)** **83 (70.34%)**

**Total of 118 patients**
**AGE: 42.35 ± 11.94**
**BMI: 38.58 ± 5.29**

**MAJOR DEPRESSION 33.9%**
**HYPERTENSION 23.31%**
**GENERAL ANXIETY 14.2%**
**PREVIUS ABDOMINAL SURGERY 45.5%**
**VENTRAL HERNIA 18.57%**
**ALLERGIES: PENICILLIN 52%**
**MEDICATION: ESCITALOPRAM 17%**

## CONCLUSION

**The results of this study suggest high safety and effectiveness of the M-Close device in our bariatric center, with a very low rate of early complications. More prospective and comparative studies are necessary to truly assess the effectiveness and applicability in other populations, specifically in bariatric centers**

## DISCUSSION

| *Early Complications* | M-Close Kit | Cutanplast | Conventional |
|---|---|---|---|
| *Pain at Trocar Site* | 3.39% | 11.9% | 65.9% |
| **1-3** | 2.5% | 0% | 0% |
| **4-6** | 1.1% | 0% | 5.9% |
| **>7** | 0% | 11.9% | 60% |
| *Infection* | 0% | 0% | 4.48% |
| *Seroma* | 0% | 2.4% | 0.0% |
| *Hematoma* | 0% | 2.4% | 29.3% |
| *Bleeding* | 0% | 0% | 12.5% |
| *Late Complications* | | | |
| *Chronic Pain* | 0% | 0% | 12.2% |
| *Hernia* | 0% | 0% | 17.2% |
| *Neuralgia* | 0% | 0% | 2.4% |

**Different methods have been evaluated in the literature. The most recent was Cutanplast, which proved to be effective in late complications, however its sample size was smaller compared to our study. It had a higher seroma and hematoma rate compared to M-Close. The conventional technique proved to have a considerable number of early and late complications. More studies are necessary to truly evaluate the effectiveness of our results. An advantage of our study is the first to assess the complication rate of the M-Close device. More devices must be evaluated to obtain results.**

## REFERENCES

**Andraos Y. Safety and Efficacy of Trocar Port-Site Closure Using a Biological Plug Closure in Laparoscopic Bariatric Surgery: a Prospective Study. Obes Surg. 2022 Nov;32(11):3796-3806. Artaglia, N., Pavone, G., Petruzzelli, F., Menga, R., Buccino, V., Pacilli, M., ... & Ambrosi, A. (2021). Management of post- bariatric complications. Our Center experience and literature review. Annali Italiani di Chirurgia, 92(6), 636-644.**