

## Comparison of Outcomes of Open and Minimally-Invasive Component Separation Techniques

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### Abstract

**Background:** There have been several investigations comparing the outcomes of open and minimally invasive component separation techniques. It has been suggested that minimally invasive component separation techniques reduce wound complications over open techniques presumably through the preservation of abdominal wall perforators supplying the skin and subcutaneous tissue.

**Methods:** A retrospective review of patients undergoing either open or minimally invasive component separation technique was performed. Patient-related variables were compared including age, BMI, maximum defect width, and previous ventral hernia repairs. Outcome variables were evaluated and included hernia recurrence and wound complications.

**Results:** Twenty consecutive patients in each arm were identified. Average age was 45.6 in the patients undergoing OCS repair, and 44.5 in the patients undergoing MICS repair. Average BMI was 31.4 kg/m<sup>2</sup> in patients undergoing OCS repair and 29.3 kg/m<sup>2</sup> in patients undergoing MICS repair. Average transverse defect width was 12.1 cm for the open CS group and 10.7 cm in the MICS group. The OCS group had an average of 1.9 previous ventral hernia repairs, whereas the MICS group had an average of 1.7 prior repairs. Recurrence rate was 5% for the OCS group, and 0% in the MICS group. Wound complications were observed in 45% of the OCS technique patients and in 10% of the MICS technique patients. Mean follow-up of all patients was 16 months.

	OCS	MICS
Max Transverse Diameter (cm)	12.1	10.7
Average Previous Hernia Repairs	1.9	1.7
Average BMI	31.4	29.3
Average Age	45.6	44.5
Recurrence	1/20	0/20
Wound Complications	9/20	2/20
Average Length Follow-up (mo)	17	16

**Conclusions:** The subset of patients in which an OCS was performed demonstrated similar patient demographics as patients in which MICS repair was performed. The rate of recurrence was similar at short-term follow-up; however the rate of wound complications was significantly higher in the OCS repair group.

### References

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