

EP16.161 : Lower Uterine Segment Thickness and Peripartum Complications in Women with Previous Cesarean Delivery

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Objectives

To determine the relationship between lower uterine segment thickness measured in late pregnancy and peripartum complications in women with previous cesarean delivery at **Service C, Tunis Maternity and Neonatology Center**.

Methods

A prospective study from 2020 to 2024 included 512 women with at least one prior cesarean delivery. Standardized ultrasound assessment of the lower uterine segment was performed at 36 to 38 weeks of gestation. Peripartum outcomes recorded included intraoperative dehiscence, uterine rupture, abnormal bleeding, and emergency cesarean section. Statistical analysis compared mean lower uterine segment thickness between women with and without complications and determined predictive thresholds.

Results

72 women experienced complications related to uterine scar integrity.

Lower uterine segment thickness was significantly lower in women with complications.

< 1.5 mm: strongly associated with **intraoperative scar dehiscence**.

≤ 2 mm: showed **good predictive value** for complications.

≥ 2 previous cesarean deliveries were associated with:

Thinner lower uterine segment

Higher complication rates

→ **Ultrasound measurement** provided clinically useful information for:

Risk stratification

Individualized delivery planning

Conclusion

Late-pregnancy lower uterine segment assessment offers reliable prediction of peripartum complications. Incorporating this evaluation into routine third-trimester ultrasound can enhance clinical decision-making and reduce maternal morbidity.