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Transabdominal, Transvaginal, 3D ultrasound of previous LSCS scar in pregnancy and its correlation with the clinical outcomes and operative findings.

Dr. Sriveni Sana, NMC Healthcare Ltd, Dubai, United Arab Emirates
Dr. Kavitha Leela Mony, Medicare Hospital LLC, Dubai, United Arab Emirates
Dr. Triveni Sana, MGM Hospital Warangal, Telangana, India

Objectives

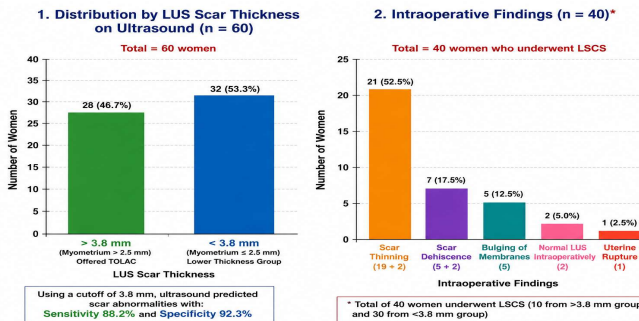
To evaluate the accuracy of transabdominal, transvaginal, and 3D ultrasound in measuring lower uterine segment (LUS) scar thickness in the third trimester of pregnancy, its predictive value in identifying candidates for VBAC and identifying areas of thinning or dehiscence, correlating with operative findings.

Methods

A prospective study of 60 cases in 3rd trimester with previous LSCS. All participants underwent TAS,TVS, and 3D ultrasound to assess lower uterine segment scar thickness.

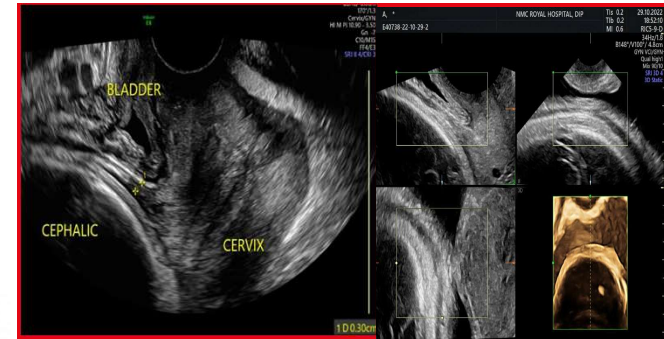
The LUS was visualized and magnified to grossly evaluate for rupture, ballooning, or funneling. 3 to 4 measurements between the bladder uterine interface, amniotic fluid decidua interface recorded, smallest documented.

On TVS ,magnified image of scar was obtained to measure hypoechoic myometrial thickness. 3D rendering allowed walkthrough evaluation of thinning or structural abnormalities. Findings were correlated with operative findings.



Conclusion

A systematic LUS measurement needs to be standardized and when combined with clinical factors and careful intrapartum management increases the successful outcomes of VBAC. TVS demonstrated greater reliability than TAS, 3D imaging improved accuracy of TVS findings. 3D assessment of the LUS muscular layer was best predictor of uterine scar dehiscence. LUS thickness was significantly lower in women with 2 or 3 previous LSCS compared to those with 1 LSCS, indicating that multiple LSCS is a risk factor for uterine scar compromise.



Normal transvaginal scar measurement and 3d rendering.



Thin scar on ultrasound and intraoperative scar dehiscence



Thinning of LUS with subserosal vessels intraoperative membrane bulging