

Comparison of transabdominal versus transvaginal ultrasound to measure thickness of the lower uterine segment at term.

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Source

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Abstract

OBJECTIVE:

To compare the accuracy of transvaginal (TVS) versus transabdominal (TAS) ultrasound to assess the thickness of the lower uterine segment (LUS).

METHODS:

Eighty-three pregnant women admitted for an elective cesarean delivery were enrolled. LUS thickness was measured using both TVS and TAS prior to the cesarean. The actual thickness of the LUS was measured using a sterile metal ruler after the neonate had been delivered.

RESULTS:

Seventeen women had unscarred uteri (20.1%); 41 had had one previous cesarean (49.4%); and 25 had had two previous cesareans (30.1%). Mean thickness of the LUS measured after delivery was 7.58+/-1.3 mm in unscarred uteri; 5.09+/-1.4 mm for one cesarean; and 3.92+/-1.1 mm for two cesareans ($P<0.01$). Actual thickness of the LUS showed a significant correlation with TVS among the total ($r(s)=0.89$); with unscarred uteri ($r(s)=0.68$); with 1 cesarean ($r(s)=0.89$); and 2 cesareans ($r(s)=0.68$), while with TAS the correlations were significant only with the total ($r(s)=0.53$) and 2 previous cesareans ($r(s)=0.63$) ($P<0.01$).

CONCLUSION:

TVS is a more accurate method of assessing the thickness of the LUS compared with TAS.