

TRANSPERINEAL ULTRASOUND (TPUS) VERSUS ENDOANAL ULTRASOUND (EAUS) IN THE DIAGNOSIS OF ANAL SPHINCTER INJURY IN THE POSTPARTUM PERIOD: THE PATIENT'S PERSPECTIVE.

Hypothesis / aims of study

Vaginal delivery is the most common cause of anal sphincter injury and can result in faecal incontinence (1). Studies using EAUS report sphincter damage in up to 35% of women following normal vaginal delivery and an early diagnosis is vital in the management of these patients. Traditionally, EAUS has been used for detecting sphincter injury in the postpartum period. However, compared with EAUS, TPUS is less invasive, less embarrassing and uses generally available transducers. Studies report TPUS to provide high resolution images of the anal sphincter the general population, although to date there are no published studies assessing TPUS in postpartum patients (2,3).

The aim of this study was to assess patient's perspective of TPUS compared with EAUS in the diagnosis of occult anal sphincter injury in the immediate postpartum period.

Study design, materials and methods

Primigravid women following vaginal delivery were offered both endoanal and transperineal ultrasound as part of a longitudinal cohort study assessing occult anal sphincter injury. Ethical approval had been obtained from the local ethics committee. Questionnaires were completed by the patient after each ultrasound scan. Data were collected regarding ultrasound discomfort, which type of ultrasound scan the patient would prefer if given the choice in the future and qualitative data supporting this preference.

Results

To date 104 patients have agreed to participate in the study.

1) Acceptance rate

98% (102/104) patients accepted TPUS and 75% (78/104) EAUS. 73% (76/104) accepted both TPUS and EAUS.

2) Ultrasound discomfort

Discomfort for each ultrasound scan was documented on a pain scale ranging between 0 (no discomfort) and 10 (severe discomfort). Discomfort score ≥ 5 was agreed in advance to be unacceptable. After TPUS, 55/76 (72%) of women reported no discomfort at all (pain score of 0) and 3/102 (3%) patients reported discomfort of ≥ 5 . This compared with EAUS in which 42/76 (55%) reported no discomfort and 3/78 (4%) reported discomfort score ≥ 5 .

3) Ultrasound preference

37 out of 76 women (49%) expressed a preference about the type of scan they would select given the choice between TPUS and EAUS in the future. 26 out of 37 (70%) expressed preference for TPUS and 11 out of 37 (30%) preferred EAUS.

4) Reasons for ultrasound preference.

The qualitative data regarding ultrasound preference were assessed by 2 independent reviewers. Five themes were agreed namely, discomfort, embarrassment, invasiveness of scan, patient position during scanning and soothing qualities of scan. Data was complete for 37 patients. Women who preferred TPUS, did so because TPUS was cold and soothing (7/26), more comfortable (3/26) less embarrassing (4/26) and less invasive (3/26). The 11 women who preferred EAUS reported preferring the left lateral position for scan (3/11), more comfortable (4/11) and further from perineal sutures (4/11).

Interpretation of results

When imaging anal sphincter injury in postpartum patients, patients prefer TPUS to EAUS. Reasons for this preference include less discomfort as shown by the pain score results. Qualitative data report TPUS to be cold and soothing and also less embarrassing and invasive than EAUS.

Concluding message

Transperineal ultrasound (TPUS) is more acceptable to patients than the traditional endoanal ultrasound (EAUS). Recruitment into this study is continuing in order to determine the reliability of transperineal ultrasound in assessing anal sphincter injury in postpartum patients.

References

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- (3) Trans-perineal versus endo-anal ultrasound in the detection of anal sphincter tears. *Eur J Obstet Gynecol Reprod Biol* 2002;103:79-82