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Have anal sphincter injuries increased since the 1950s?

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Introduction

Obstetric anal sphincter injuries (OASI) are known to be a major factor in the aetiology of anal incontinence in younger women. Clinical diagnosis leads to repair in Delivery Suite, but imaging studies invariably demonstrate that sphincter tears are often overlooked.

Aims

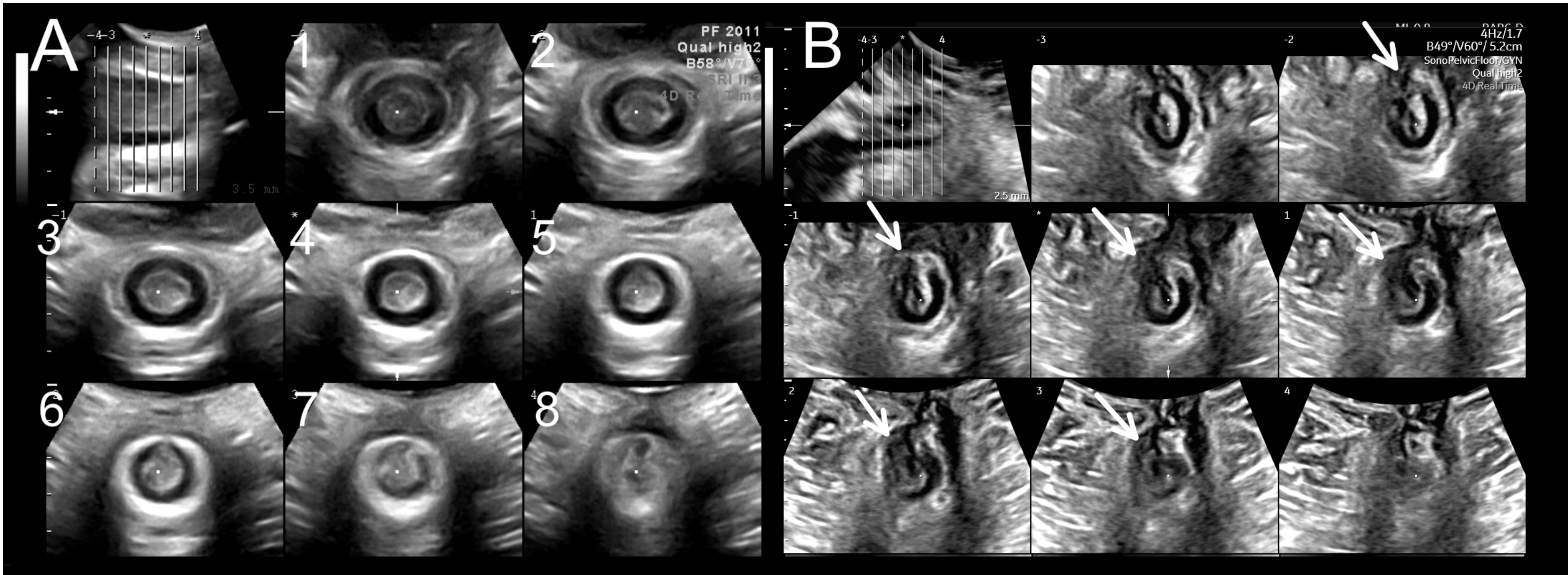
While it is generally assumed that OASI rates have increased over the last few decades[1], this may be due to detection artefact as correct clinical diagnosis requires training of obstetric attendants. We therefore undertook an imaging study to investigate the prevalence of sonographically diagnosed anal sphincter trauma in a large cohort of women who had delivered their first child between 1952 and 2024.

Methods

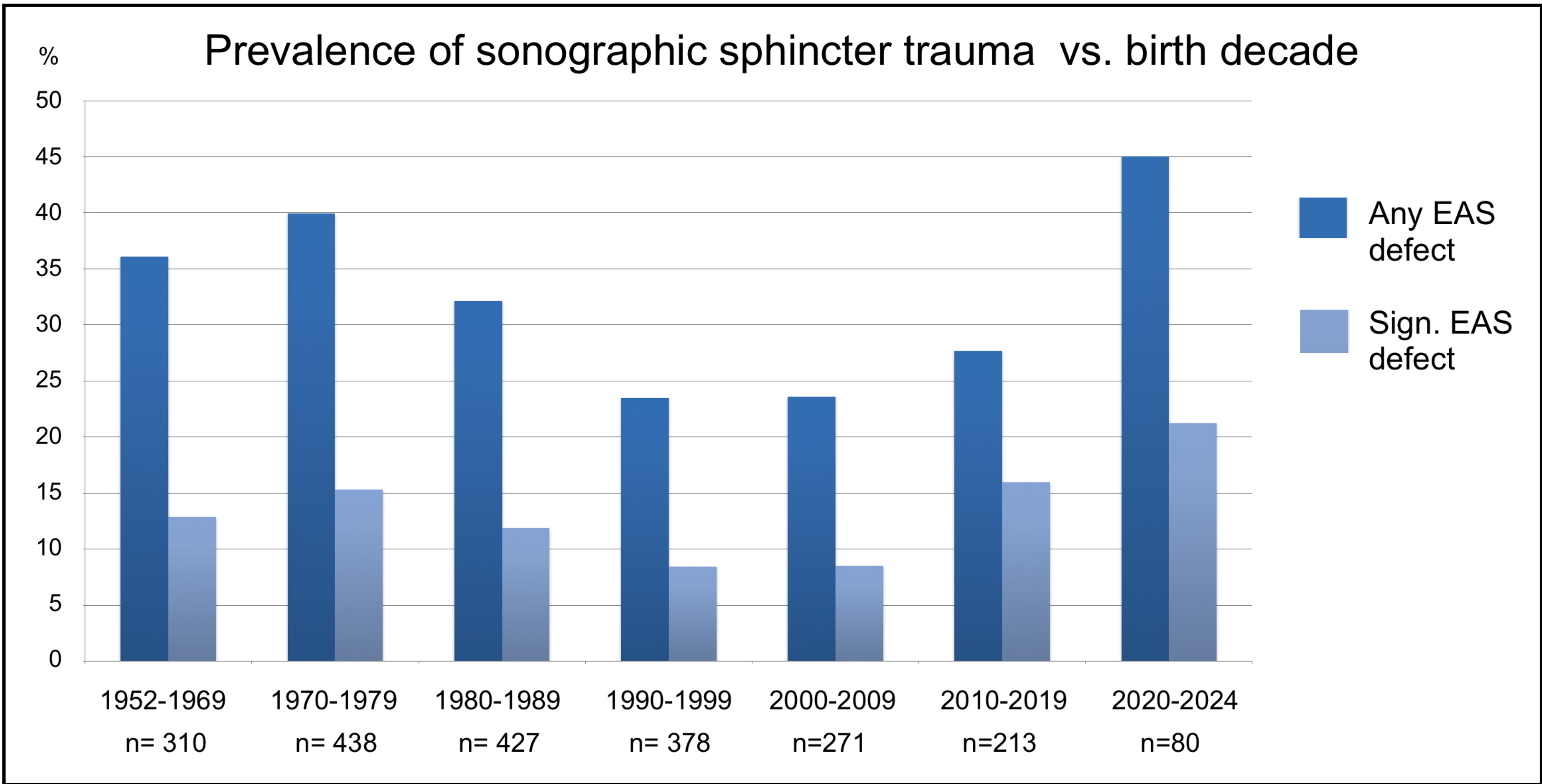
This study was a retrospective analysis of data at two clinics of a tertiary urogynaecological centre between 12/2017 and 12/2024. 4D translabial ultrasound was undertaken for imaging of the pelvic floor, including anal sphincter assessment[2]. We recorded any defects in six standard slices as well as 'significant defects', i.e., EAS defects of 30 degrees or more in 4 out of 6 standard slices on tomographic imaging. All clinical data was extracted from the institutional database. Imaging analysis was undertaken offline on a PC at a later date, blinded against all clinical data.

Results

In total 2376 women were seen during the study period, of whom 2127 (89.5%) were vaginally parous. The following analysis pertains to those 2127 women. At assessment, the average time since the first vaginal delivery was given as 33 years (0-70 years), and this allowed determination of the decade in which the first vaginal birth had occurred. Prevalence of sphincter tears showed a complex pattern: while percentages fell from the 1960s to the 2000s, we observed a substantial increase since 2010.



Normal anal sphincter (A) and sonographic appearances after a 3C sphincter tear (B).



Sonographic anal sphincter injuries relative to the decade in which the first vaginal birth occurred

Conclusions

Sonographic evidence of obstetric anal sphincter trauma was found to be of decreasing prevalence in women who had had their first vaginal birth prior to about 2000.

Since then, in our population there seems to have been an increase which would be consistent with higher Forceps use and clinical prevalence data.

References

1. Br J Obstet Gynaecol, 2013. 120(12): p. 1516-25.
2. J Ultrasound Med, 2018. 2018(37): p. 263-280.