PUBORECTALIS DYNAMICS MAY MATTER MORE THAN STATIC MEASURES — BUT ULTRASOUND ALONE DOES NOT DISCRIMINATE CONSTIPATION

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TITLE

Functional Puborectalis Dynamics Are Associated with Constipation but Show Limited Diagnostic Accuracy: A Functional Pelvic Ultrasonography Study

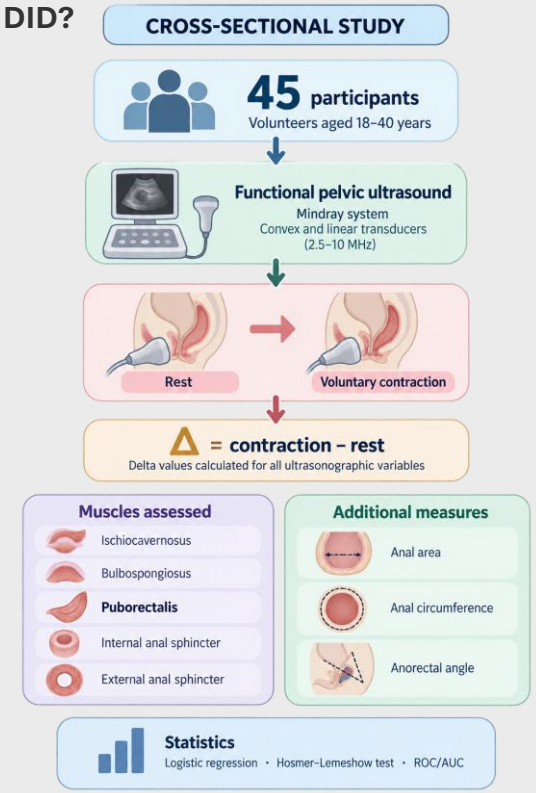
WHY THIS STUDY?

Constipation may involve altered pelvic floor dynamics, but the contribution of functional puborectalis behavior remains unclear.

AIM

To investigate whether functional pelvic floor ultrasound parameters, particularly puborectalis dynamics, are associated with constipation and whether they can discriminate individuals with and without constipation.

WHAT WE DID?



WHAT DID WE FIND?

Table 1. Sample and principal ultrasound measurements

Variable	Without constipation (n = 33)	With constipation (n = 12)
Age, years	23.0 ± 2.48	22.5 ± 2.61
Puborectalis at rest	1.75 [0.92]	2.09 [0.69]
Puborectalis during contraction	2.61 ± 0.77	3.04 ± 0.83
Anorectal angle at rest	100.58 ± 22.77	107.58 ± 22.58
Anorectal angle during contraction	78.56 ± 29.07	82.43 ± 31.90

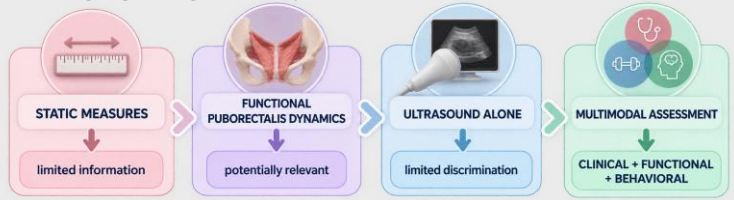
Values are mean ± standard deviation, except puborectalis at rest, presented as median [interquartile range]. Measurement units were not specified in the abstract and should be added before printing.

Table 2. Functional variation and discrimination

Analysis	Result	Interpretation for the banner
Puborectalis functional variation, logistic regression	OR 3.92; 95% CI 0.82–18.75; p = 0.088	Imprecise estimate; the confidence interval includes 1.
Gender, logistic regression	OR 10.32; p = 0.064	Estimate reported without a confidence interval in the abstract.
Model fit, Hosmer–Lemeshow test	χ^2 = 4.733; p = 0.692	No evidence of poor fit from this test alone.
Puborectalis functional variation, ROC analysis	AUC = 0.43	The reported measure did not show useful discrimination in this analysis.

The definition and direction of functional variation, and the positive outcome used for the ROC analysis, should be confirmed before interpreting the AUC further.

WHAT DOES THIS MEAN?



TAKE-HOME MESSAGE

Functional puborectalis dynamics may provide more clinically relevant information than static measurements, but ultrasound parameters alone are insufficient to discriminate constipation.

References

Dekker, L., van Reijn-Baggen, D.A., Han-Geurts, I.J.M., Felt-Bersma, R.J.F. (2023) To what extent are anorectal function tests comparable? A study comparing digital rectal examination, anal electromyography, 3-dimensional high-resolution anal manometry, and transperineal ultrasound. *International Journal of Colorectal Disease*. https://doi.org/10.1007/s00384-022-04304-6

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