



Letter to Editor

Reliability of digital rectal examination as compared to anal manometry in chronic anal fissure



Keywords:

Proctology
Anal fissure
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To the Editor,

Anorectal manometry (ARM) provides objective information on the functioning of the anal sphincter system. However, in many centres, this feature is evaluated by digital rectal examination (DRE), which remains the only tool for the evaluation of IAS tone due to unavailability of manometric equipment.

Aim of this study, conducted on 100 patients affected by chronic anal fissure of the posterior commissure (CAPF), was to evaluate reliability of digital rectal examination (DRE) as compared to ARM in distinguishing the IAS tone in order to target the surgical approach.

Clinical assessment of sphincter resting tone was classified as follows: low, normal, high and very high.

The normal range values of MRP assessed by our anorectal pathophysiological laboratory¹ was 45–85 mmHg, according to Jones et al,² so that CAPF with hypertonic IAS were those with MRP values > 86 mmHg. Patients with hypertonic IAS were divided in 2 different subgroups: high hypertonia when MRP ranged 86–100 mmHg; very high hypertonia if MRP was >101 mmHg. Statistical analysis was descriptive for the sociodemographic data. Spearman rank correlation were used to assess the strength of association between manometry measurement and DRE score.

On clinical assessment, no patient was shown to have low tone, 4 were assessed to have normal tone, 74 to have high tone and 22 with very high tone. At ARM the values of MRP were found normal in 32 patients, high in 50 and only 18 had very high MRP (Table 1).

Box plots have been done to visually demonstrate the comparison between DRE results with ARM ones, for resting pressure (Fig. 1). DRE assessment correlates well but not perfectly with ARM evaluation for resting pressure; Spearman rank correlations showed a statistically significant positive progressive correlation between the results of the 2 tools. Correlation coefficients of 0.71

for resting pressure showed significant association among the two procedures ($P < 0.001$).

The ability of the surgeon to detect IAS pressure could be undermined by the intense pain felt by patients suffering from CAPF. Those patients have often an alteration of sensibility and the anal fissure lesion is painful itself and can cause a reflex extra-hypertonic response to the extra dilatation necessary for DRE.

Identification of patients with low or normal sphincter pressure is crucial.^{3,4} In fact, these patients might be more likely to develop post-operative faecal incontinence, especially, those who underwent surgical procedures that cause an interruption of sphincter system integrity.

In patients with CAPF, with DRE indicating a very high sphincter tone, there's a complete accordance with ARM evaluation; hence, those latter are at very low risk of post-operative anal incontinence, after surgical procedure that interfere with sphincter system integrity.⁵ In all other cases there's an overlap between DRE findings of normal or mild augmented IAS tone, for this reason is mandatory to perform an ARM, even in tertiary center if not available, in order to identify patients at high risk of post-operative complications such as soiling or anal incontinence and plan a saving sphincter procedure.

Authors and Acknowledgement

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Funding

No financial support has been obtained in the preparation of this study.

Consent Section

Informed written consent was obtained from all individuals participants included in this study.

Ethics approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Table 1
Clinical and Manometric Assessment of MRP in patients affected by CAPF.

Clinical assessment (DRE)	Normal MRP	Manometry assessment (ARM)	Very high MRP	Total
Parameters		High MRP		
Normal Tone	4	0	0	4
High tone	28	46	0	74
Very high tone	0	4	18	22

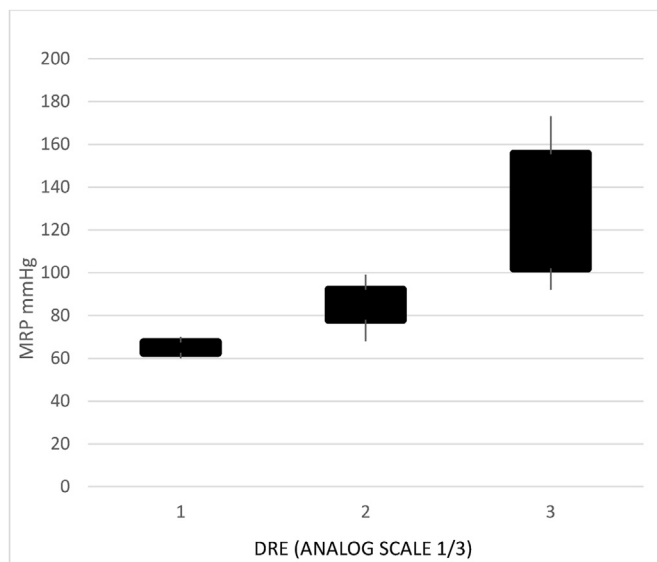


Fig. 1. Box plot comparing DRE resting tone (analogue scale 1–3) with ARM resting pressures (mmHg).

The protocol for this study has been submitted to the Ethical Committee of our institution “Ethical Committee Palermo 1-AUOP P. Giaccone” on the 11th of May 2017, which did not consider necessary to approve it and waved off, in that occasion, the requirement for ethical approval.

Availability of data

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request

Declaration of competing interest

The Authors report no conflict of interest in this work. The Authors declare that they have no competing interests. This article has not been presented nor published elsewhere, and no financial support has been obtained in its preparation.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.asjsur.2021.04.044>.

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