



Staying in HRAM's Way: Tweaking the London Classification for Disorders of Anorectal Function

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High-resolution anorectal manometry (HRAM) is a technique wherein intraluminal pressure activity is measured using a series of closely spaced pressure sensors. HRAM was designed to provide fresh insights into anorectal function and offer a new perspective on the pathophysiologic mechanisms of disordered defecation. It is a more intuitive and relatively simpler investigation to perform than the conventional low resolution anorectal manometry (ARM) with its few, largely spaced intraluminal pressure sensors. Moreover, it facilitates a more precise correlation between anatomy and function, providing a detailed topographic and colorimetric mapping of the anorectal function without the need for pull-through maneuvers to properly position the manometry catheter [1].

Given its technological superiority, the question remains regarding the diagnostic benefits of this advanced technology, in particular with regard to the diagnosis and management of disordered defecation, since its clinical value remains uncertain despite it becoming the gold standard for esophageal motility testing [2]. Indeed, many gastroenterologists and surgeons are convinced that further studies are necessary prior to recommending HRAM in preference to ARM when managing continence and defecation disorders [1, 3].

These considerations notwithstanding, we believe that the valuable efforts of the International Anorectal Physiology Working Group (IAPWG) on developing the London classification was truly noteworthy since it established consensus and minimum standards for performing HRAM according to a standardized protocol applicable to devices produced by any manufacturer. Furthermore, on the basis of a consensus agreement between internationally recognized experts, the London classification provided a standardized benchmark for performing manometry testing and a system for homogenous classification and diagnostic approach of disordered defecation [4]. The protocol was necessary since both HRAM and ARM suffered from discrepant methods for data acquisition and lack of agreement on analysis, metrics, and interpretation [5], factors that reduced data generalizability which in turn impaired the comparison of data between centers and affected pooling of data for multicenter collaborative studies. Keeping in mind that the London classification is a major step forward, the timing, number, and order of constituent HRAM maneuvers have been proposed on the basis of expert opinion, namely the IAPWG members. Moreover, the authors themselves acknowledged that additional refinement based on the everyday practice of the many motility laboratories involved is needed in order to increase generalizability and relevance [4].

The paper by Ang et al. [6] published in the current issue of *Digestive Disease and Sciences* is a welcome effort to validate and improve the London protocol generated by a busy motility laboratory. The authors aimed to assess the diagnostic yield of HRAM in determining disorders of anal sphincter tone and contractility by comparing the physiologic measures obtained according to the IAPWG protocol with a modified (simplified) protocol. The trial protocol involved a shorter rest period at baseline, fewer short squeezes, and a shorter recovery interval after each short squeeze.

On the basis of a careful, retrospective analysis, the authors concluded that a reduced resting period length from 60 to 30 s to test for anal tone, the inclusion of only 2 rather

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than 3 short squeezes of 5 s each, and a 20-s rather than 30-s recovery period after each short squeeze would shorten the IAPWG protocol from 165 to 80 s, reducing overall study duration to 85 s without compromising HRAM diagnostic yield. They also estimate that reducing the duration of each HRAM by 85 s in a busy clinic seeing approximately 1000 patients a year would save 24 h of time per year. Moreover, the patients' discomfort would likely be decreased by a shortened procedure time with secondary increased compliance. In everyday practice, anorectal manometry is often described as annoying and embarrassing by some patients to the point of suggesting rejection to other fellow sufferers [1, 3]. Reducing the exam length by about 90 s could make it more acceptable to disabled, easily embarrassed, and squeamish patients. Since patient compliance to physiologic testing is not well investigated in the anorectal domain, future prospective trials directly comparing the Ang and IAPWG protocols are this worth considering.

The authors thoughtfully acknowledged the limitations of the study, namely its retrospective nature, the limited sample size, the single institution referral, and the primary focus on female patients with fecal incontinence, which skewed the tested population away from the full spectrum of anorectal disorders, including increased anal tone and contractility disorders [7]. Nevertheless, the study is carefully performed and reported, providing the first step in an evidence-based approach to modify the IAPWG protocol. Similar approaches have been used successfully to establish the use of HRM to diagnose and classify esophageal motility disorders according to the Chicago protocol/classification, now in its fourth iteration.

In conclusion, the Ang study should encourage others in the field to judiciously appraise the IAPWG protocol by performing prospective randomized controlled trials. Future iterations should improve the protocol utility on diagnosis and management of continence and defecation disorders by addressing other controversial issues in the anorectal domain such as rectal sensation testing and pushing effort measures [7]. Moreover, the Ang study highlights the need for pursuing an international collective effort and collaboration aimed at harmonizing practice according to the actual protocol and London classification. The Ang study is a major milestone

in the ongoing quest for consistency and standardization of HRM in order to improve clinical utility of anorectal physiology testing for disordered defecation.

Declarations

Conflict of interest Giuseppe Chiarioni provided training courses for Laborie and EBNeuro; he is also member of the International Anorectal Physiology Working Group and of the Anorectal Committee of the Rome Foundation. Massimo Bellini: No CoI declared.

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