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EDITORIAL

Classification and guidelines of hemorrhoidal disease: Present and future

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Abstract

Classification and guidelines of hemorrhoidal disease are based on the subdivision in Grades of prolapse followed by any aspect related to both the treatment and its technique. When taking the proposals for classification and guidelines issued by prolific scientific societies into consideration, it is evident that strong contradictions and interpretative limits emerge in finding the best treatment to be adopted. After a critical examination of these limitations, a methodological proposal is shared to achieve a new classification, which plays a part in forming a new guideline for hemorrhoidal disease, identifying its evolution, dynamism of the prolapse, symptomatology, enteropathogenesis and gender characteristics.

Key words: Hemorrhoids; Calssification; Guidelines; Gender

Core tip: Hemorroidal disease is a common pathological entity, matter of discussion with regard to classification and guidelines. After a critical examination of these, a methodological proposal is shared to achieve a new classification, which plays a part in forming a new guideline for hemorrhoidal disease, identifying its evolution, dynamism of the prolapse, symptomatology, enteropathogenesis and gender characteristics.

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PRESENT

Hemorrhoidal disease (HD) is a common pathological entity in the West with an almost similar distribution between the sexes. Known for centuries, the disease is classified as benign but has a high social impact nonetheless, therefore drawing the subject of attention from both a diagnostic and therapeutic perspective. Despite this continuous attention, the development of knowledge on its pathophysiology and new technologies have not yet reached a univocal and shared vision of both its clinical and therapeutic management[1]. The reasons for this heterogeneity can be identified in the characteristics of the disease, determined by objective aspects such as the morphology and position of the hemorrhoidal plexuses, and the subjective, specifically the symptoms reported by the patient. This heterogeneity is expressed even more when the therapeutic phase is addressed[2], as evidenced by the most recent reports from multicenter randomized trials[3-5]. Classically, the first Grades of development are considered to be the subject of outpatient medical treatment and only exceptionally that of surgery, therefore having less impact on both the consumption of resources and patient discomfort when hospitalized[5]. The scientific literature on HD is almost entirely dedicated to the comparison between different techniques and related outcomes, of which are difficult to compare as supported in the draft of the Guidelines of the European Society of Coloproctology (under review and not yet published). This is due to the various trials present a level of heterogeneity so high that when compared, and if on the basis of the correctness of both the study methodology and the statistical analysis adopted, is possible and reliable in only a small number of cases. Also, research activities are characterized by a remarkable heterogeneity in the methods of both case studies and trials, from which emerges equally remarkable clinical behaviors, making results difficult to compare between each other. The effort to achieve a greater uniformity of behaviors by both individual researchers and major scientific societies has essentially focused on two aspects: the classification of the HD, which is the starting point for any subsequent purpose of rationalization of clinical behaviors, and the compilation of guidelines, which represent an attempt to create greater uniformity in said behaviors, offering an indication on which to address their clinical behavior on the basis of reliable reviews and meta-analysis, with the aim of obtaining the best possible performance. These attempts however, have invariably faced off against a constellation of methods, techniques and therapeutic approaches to the disease that in most cases, have undermined its effectiveness.

Classification

The Classification of HD, despite numerous attempts at updating, is basically that of Goligher[6] where the degree of morphological development of internal hemorrhoids is investigated, while for external ones the acute phase is considered, usually characterized by thrombosis or acute edema. This way of dividing hemorrhoids recognizes the anatomical independence in two plexuses, supported by the different origin of embryology, vascular inference, and innervation[7]. Internal hemorrhoids are usually referred to as non-painful or asymptomatic, while external ones are symptomatic because they are evident in cases of thrombosis or acute hemorrhoidal disease. In clinical practice however, prolapsed hemorrhoids can achieve an overlap between internal and external, determining a new morphological appearance (mixed or simply hemorrhoids) in which the anatomical subdivision between the two plexuses are theoretically correct but clinically impractical, since HD can manifest itself with a prolapse of different degrees, bleeding and pain. In this case, the subdivision between asymptomatic and symptomatic hemorrhoids are no longer possible and the choice of treatment goes beyond clinical and pathophysiological concepts with which form the basis of the guidelines. This new morphological and pathological situation has a decisive influence on the type of treatment by trying to force a therapeutic decision towards the surgical option, be it outpatient or hospital.

The reasons for criticizing the classification of Goligher revolve around the inadequacy of not considering the associated symptomatology and extension (dynamic evolution) of this classification to the entire hemorrhoidal system (internal and external), to overcome the original distinction between internal and external hemorrhoids. In this regard, Lunniss *et al*[8] argues that external hemorrhoids are not an anatomical entity in their own right but rather an extension of internal ones, thus

representing an evolutionary complication. According to this view, the Goligher classification should be understood as an entire system where the division into internal and external hemorrhoids would no longer make sense, except by considering the external as a clinical expression of an advanced stage of disease development. The external hemorrhoids however, are attributed to painful symptoms, therefore its presence can not be separated from the pain which becomes an element of distinction in the severity perceived by the patient. It is different in fact a grade II or III with or without pain, bleeding or both. In this case, the grade still has a value when associated with the symptomatology and the related treatment must be taken into account. Recently, numerous updates or revisions of this classification have been proposed in order to account for other elements that characterize HD, to combine the degree of prolapse with the presence of symptomatology and/or the prevailing etiopathogenesis of the disease[9-12]. Each of these classification proposals consider a specific point of view that is lacking in some form or another with those proposed by others[13]. To these are added studies and conceptual evolutions that consider the well-being of the patient. Nyström *et al*[14] proposes an evaluation system that considers the most important symptoms (pain, burning, bleeding, leakage and prolapse), and a recent Danish study[15] introduces interesting evaluation elements, both however, remain anchored to the Goligher classification. These studies are aimed at assessing the impact of symptoms on the quality of life of the patient, and not interfering with the therapeutic approach, therefore can only be considered as the prerequisites of the current classification.

Guidelines

Guidelines are based on some common elements that form the foundations: (1) the acquired knowledge regarding the enteropathogenesis and modalities of clinical onset; (2) the classification of the disease that most closely aligns to the various stages of development of the disease; and (3) the treatment, broken down by techniques and level of disease development. The two main reasons for criticizing this approach, that are found in all guidelines produced by national or international scientific societies still available in the literature (ASCRS)[16] such as American College of Gastroenterologists[17], American Gastroenterological Association[18], Japan Society of Coloproctology[19], Italian Society of Colo-rectal Surgery (ISCRS)[20], French Society of Colo-Proctology[21] include: (1) all are based on the Goligher classification, except those of the Association of Colon and Rectal Surgeons of India[22] which adds a further characterization to the grading, given by the number and position of the piles; and (2) the final choice of treatment is left to the surgeon's preference and, as such remains the subject of controversies from both the nosological classification and the therapeutic choices. This substantial conclusion undermines the main objective that remains of a greater homogeneity in the clinical behavior of professionals. The guidelines should be a working tool for doctors as they codify scientifically consolidated evidence and the succession of the acts that must be performed, indicating that the most suitable and effective treatments for the purpose of nosological framing and the diagnostic pathway do not actually offer a univocal view. As it is well specified in the Guideline of the ASCRS "their purpose is to provide information on which decision can be made rather than to dictate to specific form of treatment" and in those of the ISCRS, "they are to be taken as advisory rather than prescriptive rules". Even in these cases, an obvious contradiction of these guidelines is that they are based on the Goligher classification which in turn is built on the grade of prolapse, but then underline the need to carefully identify subjective symptoms and possible risk factors such as constipation, for example. Jacobs[7] and Gerly *et al*[10] suggest that this system does not integrate with other characteristics that can influence the clinical decision and that the symptoms are poorly correlated to the degree of the prolapse. A first contradiction that are found in all of the guidelines is just this: the need to consider both objective and subjective symptoms for the purpose of choosing the treatment but then refer to the classification in Grades of prolapse. In the ISCRS guideline, hemorrhoids are defined as "a pathological condition characterized by bleeding and prolapse of the hemorrhoidal cushions" without reference to whether it is referring to internal or external ones and using to Goligher's classification. Similarly, in the medical position statement of the American Gastroenterological Association, while it is claimed that internal hemorrhoids are classified according to the symptoms that they cause, reference is made exclusively to the classification in degrees of prolapse, thereby ignoring pain and bleeding. Finally, where dedicated to the guidelines of the American College of Gastroenterology, a functional grade is postulated to internal hemorrhoids without departing from the Goligher classification.

Regarding the choice of treatment, all guidelines recommend the use of hygienic-dietetic and medical treatments for the first grades while more advanced grades incur

a surgical procedure. Outpatient or less resource-intensive techniques can be used in the first grades with hemorrhagic symptomatology whereas radical hemorrhoidectomy is indicated for grades III and IV, or for patients who, even if affected by minor grades, are symptomatic or refractory to medical treatment. This introduces variables independent of the grade, subordinating the different therapeutic indication to the presence or absence of symptoms. Finally, in all the guidelines we recall the fact that standard hemorrhoidectomy can be performed with different techniques and instruments, making it difficult and ambiguous in determining which is best in efficacy, outcomes and quality of life for the patient. The guidelines are ultimately in agreement when defining pathways, methods of diagnosis and types of treatment, but are seemingly less effective when choosing which type of treatment is best, often referring to the choice of surgeon and patient, and even customizing the treatment itself. Once again, the difficulty in identifying a treatment of choice is a result of the heterogeneity in the ways of studying, evaluating and treating the according to the diversity of classification of development, a fundamental basis for its staging and subsequent treatment. From this emerges a strong need to establish a starting point, identify the classification of the disease, set on different parameters and be more inclusive of the objective and subjective situation.

FUTURE

The basic elements of a future classification should therefore consist of prolapse, bleeding and pain. Considering HD is progressive, other physio-pathological conditions play a role in the determinism of the disease such as constipation, pelvic floor dysfunctions such as obstructed defecation, and so any comorbidity must also be considered. Finally, a specific role should be attributed to gender: if pregnancy is to be considered a specific element characterizing sex, the difficult evacuation has a marked gender characterization as it is strongly influenced by the habits of life, and social, sexual, religious characteristics of the female gender[23].

A new classification, as has already been proposed[13], must therefore be the sum of the evolutionary aspect of pathology and its symptomatic severity. The elements on which to review the current classification should take into account three factors: (1) the evolutionary nature of HD, overcoming the division between internal and external hemorrhoids and considering prolapse; (2) the prevalent symptomatology regardless of the grade of prolapse; and (3) the etiopathogenetic and gender component. In place of the grade that refers to an exclusively morphological evaluation, the subdivision into stages that best expresses this dynamic approach should therefore be introduced. In light of the above, the guidelines should be reviewed based on the following basic elements: (1) the new Classification; (2) the revaluation of HD within pelvic floor diseases; and (3) the comorbidities and evolutionary perspectives according to treatment. The role of surgery should be discussed not only with reference radical hemorrhoidectomy but as a set of techniques and possibilities offered in the evolutionary phase, no longer reserved for advanced or irreversible stages of the disease. In the same way, diet, hygiene and medical treatments or those with a minor surgical impact need to be discussed again if the etiopathogenetic characteristics are also considered. As proposed, this new subdivision should then be validated by an international multicenter trial promoted by one or more scientific societies of coloproctology. In this way the new classification and guidelines can be widely used by coloproctologists and their national and international Societies, bringing a greater uniformity of behavior and comparability of results, as well as improving patient satisfaction.

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