J Obstet Gynaecol

2019 Jul;39(5):664-669.
doi: 10.1080/01443615.2018.1550475. Epub 2019 Apr 9.

Successful mast-cell-targeted treatment of chronic dyspareunia, vaginitis, and dysfunctional uterine bleeding

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- PMID: **30964355**
- DOI: 10.1080/01443615.2018.1550475

Abstract

Dyspareunia, vaginitis and dysfunctional uterine bleeding (DUB) are common problems which, despite their polygenicity, commonly appear idiopathic and treatment-refractory. Mast cell (MC) activation syndrome (MCAS) is a newly-recognised, prevalent, chronic multisystem polymorbidity of general themes of inflammation ± allergic-type phenomena ± aberrant growth/development in assorted tissues. MCs produce significant quantities of heparin, too. As such, MCAS may underlie some cases of chronic dyspareunia, vaginitis or DUB. We report five such patients; all who responded well to MC-targeted treatment. We review aspects of MC biology and pathobiology of potential relevance to otherwise idiopathic persistent inflammatory or coagulopathic genital tract problems. Diagnostic testing for MCAS may be warranted in some patients with chronic dyspareunia, vaginitis or DUB (especially patients whose histories well fit the general profile of MCAS), and prospective therapeutic trials of MC-directed topical and/or systemic therapies may be warranted in such populations. Impact statement What is already known on this subject? Chronic, idiopathic, treatment-refractory female genital tract inflammation or bleeding are common problems for which mast cell (MC) disease, previously generally thought to consist of just rare cases of mastocytosis, and is seldom considered in the differential diagnosis. What do the results of this study add? The substantial prevalence of the newly recognised 'mast cell activation syndrome' (MCAS), featuring chronic inappropriate MC activation with little-to-no MC neoplasia, and its clinical presentation with chronic multisystem inflammation ± allergic-type phenomena ± aberrant growth/development in assorted tissues, raises the possibility that MCAS might underlie the aforementioned genital tract problems, especially in patients whose larger clinical presentations fit the MCAS profile. We report five example patients (among many more we have similarly treated) who enjoyed excellent responses to safe, inexpensive MC-targeted treatments, often given just intravaginally. What are the implications of these findings for clinical practice and/or further research? Our report identifies a potentially significant new MC-focused direction, of relevance to millions of affected women worldwide, for clinical treatment as well as for basic and clinical research, which historically has

yielded major advancements disappointingly disproportionate to the scope of the affected population.

Keywords: Mast cell activation syndrome; cromolyn; diphenhydramine; dysfunctional uterine bleeding; dyspareunia; vaginitis.

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