Menstrual products as contributors to chronic vulvar pruritus

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Background

Chronic vulvar pruritus represents a common and distressing symptom that considerably impairs quality of life, affecting an estimated 5%–10% of individuals with chronic pruritus. Contact dermatitis accounts for approximately half of chronic vulvovaginal pruritus, with allergic contact dermatitis accounting for 20%–30% of chronic vulvar complaints. Menstrual products are consistently identified on standard lists of vulvar irritants and allergens, making them a potential source of irritation. Despite near-universal use, the specific contribution of menstrual products to chronic vulvar pruritus remains poorly characterized.

Objective

To evaluate the existing evidence linking menstrual products to chronic vulvar pruritus and to propose evidence-based guidance for counseling, evaluation, and management.

Methods

A systematic literature search of PubMed and Embase was conducted. Studies were eligible if they examined vulvar pruritus, irritant contact dermatitis, or allergic contact dermatitis in relation to menstrual products (sanitary pads/napkins, tampons, menstrual or period underwear) or their constituent materials (fragrances, dyes, adhesives, preservatives, and superabsorbent polymers). Evidence was synthesized narratively by product type, and management recommendations were proposed according to the strength of the available evidence.

Results

A total of 175 articles were obtained, 31 of which met criteria for analysis. Evidence remains limited and

consists predominantly of case reports, patch safety testing, ingredient-based mechanistic studies, and literature reviews. Anatomic features of the vulva predispose it to contact dermatitis owing to high tissue permeability, occlusion, friction, and exposure to bodily fluids, which may lower the threshold for eliciting contact dermatitis. Sanitary pads have the strongest direct evidence, with implicated allergens including fragrances, colophonium/rosin, (meth)acrylate adhesives, preservatives, and the UV absorber drometrizole. A prospective study of women with vulvar pruritus found ≥1 clinically relevant allergen in 44% of those tested. Data for tampons and period underwear were minimal. Management centers on removal of suspected irritants, switching to 100% cotton, fragrance-free products, topical corticosteroids, and oral antipruritics, with patch testing for refractory or suspected allergic cases.

Conclusion

Menstrual products can contribute to chronic vulvar pruritus by provoking irritant and allergic contact dermatitis, yet clinicians may underrecognize this association given the limited evidence base. Incorporating a detailed menstrual product history into the evaluation of persistent vulvar pruritus, alongside recommending fragrance-free cotton alternatives and extended patch testing when clinically appropriate, provides a practical approach to identifying potentially modifiable exposures.

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