

# Focal vulvitis and localised dyspareunia

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A complaint of sharply localised dyspareunia is far from uncommon especially in young women. In many cases the cause will be found to be a superficial, shallow often minute "split" or tear in the vaginal mucous membrane which is nearly always situated at the junction of the labia minora inferiorly, namely the labial fraenum. These tears are sometimes extremely slow to clear up as intercourse and spasm may delay healing. They are also frequently very difficult to appreciate without some magnification and a bright, laterally directed light source. A further complication is that the dyspareunia may lead in a surprisingly short time to a failure of sexual arousal and further difficulties with intercourse.

The reason for the site of the split is presumably anatomical at an area of potential stress. Once healed there is a distinct chance that the split will recur and the problem may persist for many weeks or even months.

Another familiar cause of the same symptom complex is herpetic infection at the same site. The labial fraenum is a favoured site for infection with a number of sexually transmitted diseases including herpes, syphilis, and viral warts, all presumably due to the frequency with which small splits or "micro tears" take place in this stressed region. When herpes is responsible, the history of recurrences along with the frequent presence of typical vesicles usually make the diagnosis clear. It is important to remember, however, that not infrequently lesions are present only at the labial fraenum, that they may be very few in number and that they may not be recognised unless a lens or colposcope is used.

Recently attention has been drawn to another cause of focal dyspareunia<sup>1</sup> which has been given the name of *focal vulvitis*. The work of Peckham *et al*<sup>2</sup> in 1986 who described the disorder in some detail and suggested its name, pointed out that the condition had been recognised, and the name used, earlier this century by other authors and it seems likely that it is a neglected cause of this symptom.

### *Onset and symptoms*

It may develop at any age but is seen most commonly

in sexually active women in their twenties and thirties. In most the onset of the main symptom of dyspareunia is acute and may often be ascribed to a specific act of intercourse though in others it is gradual and may be noted over a period of weeks or months. Some patients may have been sexually inactive and the pain noted during the insertion of tampons.

The pain is sharply localised and many patients are able to point to several sites at the introitus where this is experienced. It is usually severe enough to either interrupt intercourse or to inhibit virtually all sexual response. A number of patients will be forced to abandon sexual activity and the use of vaginal tampons because of the severity of the pain produced which may persist as an ache for some hours after its initiation. The severity of the pain is subject to fluctuation, premenstrual accentuation often being noted. A few will also complain of vulval discomfort which arises *de novo* and in others it may be made worse by the wearing of tight clothing.

### *Findings on examination*

To ensure that lesions are not missed it is essential to direct a bright light source on the vestibular region whilst at the same time everting the hymenal ring fully exposing the inner surface of the labia minora. Magnification with a lens or the colposcope is useful to see early changes though most developed lesions can be easily seen with the naked eye.

The commonest lesions to be seen are flat, non ulcerated areas of bright erythema ranging in size from 2 to 8 mm. These are most commonly found in the region of the openings of the ducts of Bartholin's glands, that is to say at around 4 to 8 o'clock and the great majority occur in the lower half of the vestibule (from 3 to 9 o'clock). In some patients tiny superficial ulcers may be seen at the painful sites whilst in others, equally small splits in the mucous membrane may be appreciated with the help of magnification. The number of lesions present is usually one to three though rarely as many as 10 may be found. When lesions are present at the labial fraenum (6 o'clock) the mucosal surface of the lower part of the vestibule may be diffusely reddened.

In all these various lesions their characteristic feature is the extreme tenderness to touch with a cotton wool probe whilst the immediately surrounding mucous membrane appears entirely normal and touching it causes no pain. Another characteristic is

that the test is reproducible by other observers at differing times. The pain is always experienced at a sharply localised site and this "test" of eliciting the pain by the use of a wool probe should always be carried out as part of the examination of such patients.

#### Course

The course of the illness is very variable and overall about 50% can expect to recover completely in about 6 months to a year though it is impossible to predict what is to happen in an individual patient. In some the condition persists for many years and is unresponsive to any form of therapy.

#### Aetiology

There appears to be no clear association with pregnancy, parity, contraception, sexual techniques or the presence of any currently recognised acute or chronic infection of the urogenital tract. Also there appears to be no unusual history of autoimmune disease or oro-genital aphthous ulceration amongst sufferers nor have any been observed subsequently to develop Behcet's disease. (Perhaps it should be remembered in this context that so far only relatively small numbers of patients have been comprehensively investigated.<sup>2</sup>

#### Pathological changes

Pelisse and Hewitt<sup>3</sup> studied 30 patients who complained of localised dyspareunia and in whom examination showed reddened areas localised to the posterior part of the vestibule. They called the condition *Erythematous vulvitis en plaques*. Pathologically, acute and chronic inflammation of the subepithelial layers was noted along with a predominance of plasma cells in many areas and this finding suggested to them that it might represent an early stage of the plasma cell inflammation of the penis noted by Zoon<sup>4</sup> and which has also been reported as a cause of vulvitis.<sup>5,6</sup>

Freidrich<sup>7</sup> attributed the syndrome to inflammation of some of the minor vestibular glands and surmised that the focal erythematous areas were in fact the orifices of these glands. (The major vestibular or Bartholin glands are homologous to Cowper's glands whilst the minor vestibular glands correspond to Littre's glands in the male). Biopsy of the affected areas often but by no means always, shows vestibular gland tissue which may be infiltrated with lymphocytes and small numbers of plasma cells though this is not a universal finding.

In some of their patients, Peckham *et al*<sup>2</sup> found the epithelium overlying the lesions to be thinned and lacking papillary pegs. Importantly no evidence of vasculitis was found. Although scattered areas of focal inflammation were seen as well as small numbers of lymphocytes around some cells, they con-

cluded that there was little correlation between the painful lesions and the sites of vestibular glands or the collections of inflammatory cells. Their failure to find any significant collections of plasma cells makes it unlikely that the lesions have any connection with Zoon's vulvitis even though some workers have questioned the importance of these cells in the histological diagnosis of this disorder.<sup>8</sup> In short there does not appear to be a characteristic histological pattern in focal vulvitis and certainly nothing which gives a clue as to its causation.

#### Treatment

On general principles any local infections due to yeasts, trichomonas etc. should be dealt with but there is no specific therapy for focal vulvitis. Antibiotics, metronidazole and steroids both locally and intralesionally are ineffective. In some patients the application of a 4% solution of lignocaine hydrochloride or 2% lignocaine as a gel (xylocaine) to the painful lesions a few minutes before coitus is attempted will sometimes allow sexual relations to continue with a reasonable degree of comfort and this should be the first line of treatment for most patients as spontaneous cure can be expected in about half of all sufferers. Some patients will also need a considerable degree of support and encouragement even if this stratagem is successful as levels of sexual arousal and confidence are often low.

When lesions are few their destruction by means of the laser has met with some success.<sup>9</sup> Cryotherapy however was not found to be successful by Peckham *et al*.<sup>2</sup>

In severe and persistent cases relief has been obtained in some patients by the operation of "perineoplasty" in which the hymeneal ring and 0.5 cm of the contiguous mucosa and submucosa are excised. The vaginal epithelium is undermined, exteriorised, and sutured to the skin. Although the results appear to be good more experience and follow up is needed before the precise place of this procedure can be accurately defined and it should only be considered for carefully selected patients.

#### Conclusion

Focal vulvitis appears to be an important cause of localised dyspareunia. Although the symptoms, signs and course of the disorder appear to be reasonably well defined, treatment is unsatisfactory and is likely to remain so until the cause or causes of the syndrome are elicited.

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