THE INVESTIGATION AND TREATMENT OF ANOGENITAL PRURITUS

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The patient with anogenital pruritus sets a difficult diagnostic problem for several reasons.

This symptom may be due to one or more of a motley group of causes, ranging from outward irritation from parasites, fungous and coccal infections, chemicals and local skin diseases, through more general causes including toxic states, metabolic disorders, and nutritional deficiencies, to the other extreme of psychogenic irritation caused by an unresolved psychosexual conflict.

Similar or even identical physical signs may result from many different causes and they indicate psychophysical type reactions of the patient rather than the nature of the cause. Thus, a follicular eruption may arise from nutritional deficiency, chemical insult, bacterial and fungous infection with or without obvious physical injury, or from an emotional upset. Often the action of two or more of these noxae coincides and the status seborrhoeicus represents the resultant lowered resistance of the follicles to infection with banal organisms. Vitamin B, iron and protein deficiencies account for a proportion of cases of this sort but the remainder are relatively or completely unresponsive to nutritional therapy.

Pruritus usually, but not always, leads to scratching or rubbing, but the results of physical injury to the skin differ from one individual to another, so that eczema may result in one, lichenification in another, a seborrhoeic eruption in a third, and psoriasis in yet another if the sufferer happens to be a latent or overt psoriatic.

The physical signs may be aggravated, altered or masked by secondary infection with bacteria and fungi or by injudicious treatment, especially with benzocaine surface anaesthetics, sulphonamides, mercurial antiseptics and fungicides, penicillin, phenol and other bactericidal and fungicidal agents.

The condition found on examination may be the cause of the pruritus, or the result of subsequent physical or chemical damage, or infection, and the primary condition can then only be diagnosed after the clearance of the secondary dermatosis. Mildly infected eruptions demonstrate this difficulty very well. They may arise from the primary cause, such as malnutrition or chemical irritation from vaginal douche or contraceptive. They may also be due to secondary infection from scratching and rubbing or from the application of therapeutic irritants which set up a chemical dermatitis which soon becomes infected. The paradox of infected chemical dermatitis from antiseptic topical agents is explained by the harmful effect of many of these substances on epidermal cells, leading to a reduction of the self-disinfecting properties of the skin.

Physical examination may reveal a specific skin disease, or a skin reaction which gives a hint of the cause of the pruritus and suggests further lines of investigation. But 'Qui bene interroget, bene diagnoscit' remains the guiding principle because only a comprehensive history can give the necessary positive information upon which an accurate diagnosis is based. This applies to all types but especially to the psychogenic cases, the diagnosis of which is only made on positive evidence. Leading questions have to be put, to exclude nutritional, contact irritant and psychogenic causes.

Anogenital pruritis may be discussed under the following headings:—pruritus vulvae, pruritus vulvae et ani, pruritus scroti et perinei, pruritus ani.

Pruritus Vulvae

Enquiry must be made regarding possible local irritation from the use of contraceptives, douches, antiseptics and medicated soaps; vaginal discharges; diabetes; the internal use of drugs such as phenolphthalein, sulphonamides and barbiturates, skin affections elsewhere; the nature of the diet, the presence or absence of gastrointestinal disorders and psychosexual difficulties. This psychogenic form arises in circumstances that have been described as the 'shouldn't, won't and can't situations,' the first two being the most usual. Thus it may occur when fear, revulsion, impotence or widowhood make consummation impossible. The fear of physical harm (a dreaded pregnancy, infection or even cancer); the fear of
family, social and financial harm; the fear of
moral collapse itself, may all be responsible. The
conflict is often obvious but the help of a psychia-
trist is invaluable in the assessment and treatment of
those patients in whom the cause seems more
obscure because in these circumstances the
pruritus may be the result of the reactivation of a
basic (incestuous) conflict by some much more
obvious recent psychosexual difficulty. This re-
cent stress, in another individual with no similar
emotional instability, would by itself not cause
pruritus.

Examination is made by routine from head to
foot, special attention being given to the condition
of the scalp, oral mucosae, tongue, skin and nails,
urine and the presence or absence of anaemia. If
there is a vaginal discharge, trichomonas infesta-
tion and moniliasis must be excluded. In obscure
cases a fractional test meal, sugar tolerance curve
and blood count may give essential information
and valuable guidance for treatment.

The more common conditions found on local
examination, with their implications, are:—

(1) No abnormal physical signs. This suggests
either a toxic cause as, for example, in pruritus
with pregnancy, or a psychogenic basis with
marked self-control.

(2) Lichenification implies rubbing without sub-
sequent infection, so that the cause may be any of
the causes of pruritus, especially eczema, and
seborrhoeic eruptions. Another form more cor-
rectly termed 'neurodermatitis' is essentially
psychogenic, may involve clitoris, labia, mons or
the inner thighs and is to be regarded as a form of
autoeroticism.

(3) Excoriation and lacerations imply gouging
and scratching without subsequent infection.
This unusual phenomenon may be seen in patients
in whom guilt factors are prominent and it seems
to imply self-punishment and a means of pre-
venting coitus.

(4) Furunculosis and impetigo are usually the
result of scratching and rubbing with subsequent
infection. Glycosuria must be excluded and a
sugar tolerance test is advisable even if the urine
is normal. In practice it is always advisable to
treat these cases with a low carbohydrate, high
protein diet, even in the absence of obvious dis-
turbance of sugar metabolism. Furunculosis
vulvae often follows seborrhoeic and eczematous
eruptions and lichenification, and so necessitates
the same investigations as do these reactions.

(5) Seborrhoeic eruptions suggest nutritional de-
ficiency especially if associated with one or more
of glossitis, angular stomatitis, anaemia and
koilonychia. The possible ways in which such
nutritional deficiencies may arise include dietetic
faddism, especially with a high carbohydrate, low
food intake; gastrointestinal disorders, especially
achlorhydria and chronic diarrhoea, leading to
poor absorption and impaired synthesis of vitamin
in the gut; increased demands in pregnancy and
lactation; and impaired metabolism from dis-
turbance of liver function by drugs which have
been injected (gold, arsenic), swallowed (mepa-
creine, mercury), or absorbed (sulphonamides,
flavine, mercurials, paraphenylenediamine). These
toxic substances may produce generalized der-
matoses, but sometimes the pruritus may be worst
or most persistent in the anogenital region.

The absence of seborrhoeic manifestations does
not in itself exclude a nutritional basis for the
pruritus.

Seborrhoeic eruptions also arise in the con-
stitutionally predisposed from increased follicular
susceptibility to infection set up by local chemical
and physical irritants, and from psychogenic
causes, without nutritional deficiency.

The diagnosis of a seborrhoeic eruption is sup-
ported by the presence of outlying 'satellite'
follicular lesions and seborrhoeic manifestations at
other sites, the scalp, brows, lashes, nasolabial
folds, aural meati and postauricular folds, axillae,
genitocrural folds and the mid line of the trunk.

(6) Intertrigo implies obesity and hyperidrosis
with sweat retention, but without subsequent in-
fecion. Diabetes must be excluded, but is more
common in the next group.

(7) Intertriginous dermatitis implies obesity and
hyperidrosis with sweat retention and secondary
infection with Candida (monilia) al-
bicans and banal cocci. Glycosuria is often
present. The condition may also involve the sub-
mammary region, intergluteal cleft, umbilicus,
digital clefts and, in the male, the glans penis and
prepuce. Moniliasis may also occur in pregnancy,
possibly in association with lactosuria. The
presence of monilia on the skin does not in itself
cause pruritus. This fungus, a common skin con-
taminant, has been demonstrated on the skin of
apparently normal women not suffering from
pruritus. It is intertrigo, maceration and glyco-
suria which provide the ideal warm, moist,
saccharine conditions for the development of this
fungus in the epidermal cells, leading to a pruritic
monilial and cocal dermatitis. If, but only if, the
fungus is found within the epidermal cells them-
selves on microscopic examination, the dermatosis
may be accepted as definitely monilial in origin.
Many cases so diagnosed are, in fact, low-grade
coccal infections.

(8) Tinea cruris ('eczema marginatum'), differen-
tiated from seborrhoeic eruptions by its clean-
cut, scaly edge, usually without 'satellite' lesions,
may involve not only the genital orifices, but also the intergluteal region, axillae, soles, toes, clefts and fingers or toe nails. The diagnosis should be confirmed microscopically.

(9) Vulval dermatitis from contact causes rapidly becomes secondarly infected so that in all cases of infected dermatitis, contact irritants should be suspected. Vaginal douches, contraceptives, alkalis, medicated soaps and antiseptics used as a routine in washing, are common causes, while sensitivity to rubber and dyes and detergents in textiles are more uncommon causes. Hand-transferred irritants may also be responsible, including nail varnish, and varnish and cuticle removers which may cause a patchy dermatitis of the inner thighs, usually in association with dermatitis of the eyelids, neck or periauricular regions. Lack of personal hygiene is rarely the cause of pruritus of other than a mild and transitory type, easily relieved by soap and water. On the other hand, the excessive use of medicated soaps and antiseptic lotions and douches by bacteriophobes is a more common cause of vulval dermatitis and pruritus. In particular, the routine use of liquor chloroxylanol (B.P.) in bath water in very uncertain concentrations is to be deprecated. Finally, many patients with pruritus vulvae are first seen by the consultant after the unsuccessful trial of a long series of antipruritic and antiseptic applications, of which the most serious offenders are benzocaine derivatives, sulphonamides, mercurials, phenol, iodine and, to a lesser extent, dyes, tar and fungicides. In the highly susceptible, almost any local application may aggravate. Vulval dermatitis may also be aggravated or caused by internal remedies, especially phenolphthalein and sulphonamides, and it has also been reported from quinine, salicylates, barbiturates, phenazole, gold and, more rarely, belladonna, opium and the halogens.

(10) Dermatitis of the labia majora may be the only physical sign and suggests a nutritional cause (arboflovitinosis). Confirmatory evidence may be found from examination of the tongue and lips.

(11) Psoriasis of the vulva implies friction of this area in a latent or overt psoriatic individual. It is an example of Koechner’s isomorphic phenomenon, the specific reaction of the psoriatic skin to injury. It may result from any of the causes of pruritus vulvae. Eczematous changes from contact chemical irritants may modify the appearance and intertriginous dermatitis may also become superimposed. Examination of the scalp, nails, knees, elbows and other regions may confirm the diagnosis.

(12) Lichen planus involving the labia minora may cause pruritus vulvae, and confirmation should be sought in the buccal mucosa, where the lesions do not itch, and at the wrists, lumbar regions, legs and other parts of the skin surface.

(13) Leucoplakic vulvitis is a postmenopausal, chronic, inflammatory, hyperkeratotic and telangiectatic condition leading to atrophic and pigmentary changes, often precancerous, involving the labia and sometimes the skin of the perineum and perianal regions. Bowen’s precancerous dermatosis may also arise on the labia as a firm, irregular, raised patch causing intense pruritus. It may occur before the menopause.

(14) Kraurosis is a similar variegated condition of atrophy, sclerosis, pigmentation, depigmentation and telangiectasia, with stenosis of the vaginal orifice.

(15) Lichen sclerosus et atrophicus, a rare condition, is a patchy atrophic form of scleroderma in which a white, atrophic, scaly, rather parchment-like skin is found, often involving the perineum, perianal region, submammary areas and trunk in addition to the vulva. It is usually found in postmenopausal women. It is not a precarcinomatous condition so that its differentiation from leucoplakic vulvitis is most important. There is no reason to suppose any relationship to lichen planus although the latter may have atrophic stages.

(16) Pediculosis must not be forgotten. The ova on the hairs and the lice at the bases thereof may be missed by the unobservant and the presbyopic.

(17) Condylomata acuminata (filiform warts) often cause pruritus and condylomata lata (syphilitic) may also itch.

(18) Vaginal discharges call for a careful examination of the genital tract. Trichomonas infections arise when the vaginal secretions tend towards alkalinity as a result of damage to the epithelium or disturbance of the normal flora, from gonococcal and other infections. Monilial infection, more common with pregnancy and in diabetes, and discharges set up by retained pessaries and other foreign bodies, may be responsible. Stress incontinence, and subsequent ammoniacal decomposition of the urine, and glycosuria or a highly acid urine must be excluded. Procidencia, cervicitis, erosions and polyposis, if present, should be treated.

Pruritus Vulvae et Ani

Threadworm infestation may cause vulval pruritis in children, and although this is rare in adults, their presence must be excluded if pruritus ani is also present. Apart from this cause, all the conditions mentioned under Pruritus Vulvae must be considered, bearing in mind that anal pruritus may indicate emotional immaturity and reversion.
to a more infantile form of eroticism. (See also Pruritus Ani.)

**Pruritus Scroti**

Pruritus scrotil et perinei is analogous to pruritus vulvae and arises from similar causes, the more common appearances being:

- Dermatitis, from contact causes or arbo-flavision.
- Seborrhoeic dermatitis.
- Intertrigo and intertriginous dermatitis.
- Psoriasis.
- Lichen planus.
- Lichenification.
- Furunculosis.
- Tinea cruris.
- Pediculosis.
- Condylomata.

A proportion is psychogenic, based on a psychogenesis comparable to that of the vulval cases.

**Pruritus Ani**

Pruritus ani is due to a smaller number of local and general causes. Resistant cases are much more commonly men. In 1948, 87 per cent. of cases of pruritus ani per se at St. John's Hospital for Diseases of the Skin were males. Overflow of pruritus ani to or from the genital region was common in women (26 of 37 cases—70 per cent.) and unusual in men (5 of 79 cases—6 per cent.).

Local causes include:—(1) threadworms; (2) leakage of irritating rectal contents (especially alkaline stools), loss of sphincter control, purging, diarrhoea, seepage from excess use of liquid paraffin, colitis, proctitis, carcinoma; (3) haemorrhoids, whether primary or secondary to carcinoma of the colon or cirrhosis of the liver; skin tags of the perianal region do not cause pruritus; (4) fissures in or near the anus; (5) fistulae; (6) fungus or monilial infections; (7) seborrhoeic dermatitis; (8) psoriasis; (9) dermatitis from contact irritants; (10) condylomata lata; (11) condylomata acuminata; (12) pediculosis; (13) general causes, possibly including condiments, alcohol, tea and coffee, at least as aggravating factors; (14) nutritional causes (avitaminosis); (15) psychogenic causes; these patients are often obsessional types and the condition represents an imperfect development from the stage of infantile anal eroticism; a relatively minor inadvertent local stimulus may activate the condition.

It is essential to make an examination by anal swabs for oxyuris ova. This is done as follows:—

A glass rod is used with cellophane wrapped around the tip. The cellophane should be gently twisted in the anal canal, outside the sphincter, and it is subsequently detached with two pairs of forceps, placed on a slide with a few drops of saline, and a coverslip superimposed. Examination is then made under the in. objective for ova, with special attention to the creased areas of the cellophane.

A psychogenic basis may be suspected from effeminate mannerisms and tendencies in male patients and the life history and environmental circumstances, but a satisfactory assessment can only be obtained by a trained psychiatrist. Unfortunately, owing to the remote infantile nature of the conflict, these patients often prove highly resistant to psychotherapy so that reference to a psychiatrist is only likely to be of value as far as establishment of the aetiology is concerned.

**Treatment**

This section will deal with general principles only and not with the treatment of specific vaginal, rectal and dermatological conditions.

Treatment must be based on a conscientious attempt to uncover and remove the cause, and (with few exceptions) no matter what the physical signs may be, thought should always be given to the possible parts played by outward irritants, emotional irritants, infections and parasites, nutritional deficiencies and metabolic causes. The unmasking of one cause must not lead to relaxation of the hunt for others.

A few 'Don'ts' are of great importance in the prevention of prolongation or aggravation of suffering in these cases.

Surface anaesthetics of all kinds and particularly the benzocaaine type should be rigorously avoided, as these substances are often the cause, after a few days, of ecematization and gross aggravation of the pruritus. There are few cases in which their use is justified and their very effectiveness leads to the danger of their empirical use without full investigation of a case. Unfortunately, some proprietary preparations contain a combination of oestrogenic and anaesthetizing agents, and for this reason are potentially dangerous.

The use of antiseptic and fungicidal applications is also rarely necessary, as in most cases associated with infection damage to the epidermis by scratching or chemical irritants is responsible. The application of antiseptics will not prevent further furunculosis vulvae or infective dermatitis if scratching continues; on the contrary, their use may reduce the skin's power of self-disinfection, so that infection is in fact aggravated. Sulphonamides, flavine, mercurials and penicillin are all potentially sensitizing agents, especially to an abraded skin surface. A relatively safe application is a per cent. brilliant green in zinc cream, and often a zinc or calamine cream is adequate, in
conjunction with general sedatives, for relief of
the pruritus, while the cause is discovered and
removed. Some patients are more comfortable
from the use of a dusting powder (Consensus
Talci Boricus) than from the use of creams. Pig-
mentum Magentae is useful for fungous and low-
grade coccal infections.

If the cause is believed to be an emotional con-
ict, the physician is wise to confine himself to an
explanation of its more superficial implications and
the assistance of a psychiatrist may be indis-
pensable if the patient is mentally so ill as to re-
quire psychotherapy. The treatment of pruritus
ani on these lines is, unfortunately, much less
successful than that of pruritus vulvae.

X-ray therapy is best reserved as an adjuvant
for breaking the vicious circle when chronic
eczematization or lichenification is present. Its
use for moist or infected lesions is not only un-
helpful but positively risky as the tissues under
such circumstances are unduly sensitive to ir-
radiation, so that undesirable effects may arise.

A useful alternative to X-rays in the treatment of
lichenified, psoriatic and scaly eczematous patches
is thorium-X in the strength of 1,500 electrostatic
units in 1 ml. of spirit, applied once a fortnight for
up to six occasions.

There is no place for mutilating operations, such
as vulvectomy, for pruritus, excepting only when
leucoplakic vulvitis or Bowen's disease is present.
Procedures of this nature for 'idiopathic' cases are
quite unjustified and almost certain to be followed
by a recurrence of the irritation, with increased
mental distress. The same applies to nerve under-
cutting and anaesthetic injection procedures.

Oestrogens have a limited sphere of usefulness
in the relief of pruritus vulvae. They are justifi-
ably used in menopausal or postmenopausal cases
showing atrophic changes and diminished secre-
tion, and in other cases of pruritus vulvae they
may be used to give relief by their power of de-
creasing the pH of the vaginal secretion.

Hydrochloric acid by mouth relieves some cases
of pruritus vulvae and is a useful empirical
measure even in the absence of an obvious nu-
tritional basis and before a fractional test meal has
demonstrated achlorhydria.

In seborrhoeic and other cases with nutritional
deficiency a high protein diet, iron, vitamin B
complex and crude liver extract injections give
prompt relief. In leucoplakic cases vitamin A
may help and a trial of multivitamin supplements
is justified in all obscure cases. For all cases with
infection a low carbohydrate diet is advisable,
quite apart from the treatment of any diabetes that
may be present.

Summary

Most cases of anogenital pruritus are caused by
one or more of the following:—contact irritants,
infestations, parasites, emotional, nutritional and
metabolic causes.

Treatment must be based on a careful and
comprehensive assessment of the causes, and the
physical signs must not be regarded as giving more
than a picture suggesting the possible primary and
secondary factors at work.
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