education

FROM THE JOURNALS Edited highlights of weekly research reviews on https://bit.ly/2PLtil8

Messy scores

MEESSI is a score developed in Spain for prognosticating acute heart failure in the emergency department. Prognosis is something we think we are good at, even though studies show we aren't, but we are still sure we are. This Swiss study successfully validates the score in their cohort. I am glad it was valid and believe the score probably is highly discriminatory at predicting 30 day mortality. Nice work. Whether it will be useful to apply it in practice remains to be seen. It depends what decisions would change as a result of knowing a patient's risk of 30 day mortality. It could be used to deny some patients more aggressive therapy and that puts any score in a messy area.

Ann Intern Med doi:10.7326/M18-1967

Probable dementia and blood pressure

Researchers in the US performed a randomised controlled trial of patients with hypertension. They compared blood pressure control with a target of less than 120 mm Hg versus a target of less than 140 mm Hg and looked for a reduction in "probable dementia" cases. This was a large (9361 people) and elegant trial. It was stopped early because intensive blood pressure control was better for cardiovascular outcomes and all cause mortality. The difference in probable dementia rates between the two blood pressure control groups was not statistically significant. So, we do not know if blood pressure lowering reduces probable dementia, but we know it is good. We knew this before, but are a bit reluctant to act in practice because lower blood pressures might also be bad and it's hard work. Also it requires more medication which, in real world practice, isn't necessarily good or even consumed.

JAMA doi:10.1001/jama.2018.21442

Hopes for hepatitis C

Heffernan et al's study predicts the global hepatitis C epidemic by 2030 and models the impact of public health interventions on this. They estimate 640 000 deaths from cirrhosis and liver cancer would be prevented by offering direct acting antivirals at the time of diagnosis and 1.5 million deaths would be prevented by offering a comprehensive package of prevention, screening, and treatment interventions. They estimate 15.1 million new infections would be prevented by the comprehensive package. This is a salient paper to increase focus on delivering public health interventions to tackle this condition globally.

Lancet doi:10.1016/S0140-6736(18)32277-3

Cardiac bypass grafts

This trial is boss. And I don't just mean because the authors are boss (including the late Doug Altman). I mean it's impressive to randomise more than 3000 patients and follow them up for 10 years, especially when randomising to bilateral internal thoracic artery grafting versus single internal thoracic artery grafting. It shows what is possible in clinical trials with the right stakeholder support and infrastructure. The trial found no difference in mortality or the composite outcome of death, myocardial infarction, or stroke between the two groups.

N Engl J Med doi:10.1056/NEJMoa1808783

Anti-antibiotics for asthma

Almost 20 000 patients hospitalised with asthma exacerbations and given systemic corticosteroids were studied in this American cohort study. The authors compared patients who were prescribed antibiotics with those who weren't. Those prescribed antibiotics had longer hospital stays and higher hospital costs. "Treatment failure" rates were no different. These observational data are interesting but provide no information about causality because of confounding by factors that contribute to antibiotic prescribing such as age and co-morbidities, which also affect length of stay and costs. It is reassuring that patients weren't worse off without antibiotics though.

JAMA Intern Med doi:10.1001/jamainternmed.2018.5394

Drugs for anxiety

Slee et al analysed 89 randomised placebo controlled trials of drugs for anxiety, providing comparative data for the different drugs. All the pharmacological agents appeared quite effective. The most effective, and relatively acceptable in terms of side effects, were duloxetine, pregabalin, venlafaxine, and escitalopram. Mirtazapine, sertraline, fluoxetine, buspirone, and agomelatine were also effective, but the study sizes were smaller. Benzodiazepine and quetiapine were less well tolerated, but still effective. Admirably, they included Chinese trials (that weren't written in English). The results were not much affected by the Chinese trials, but did provide data for some drugs that weren't assessed in any other study.

Lancet doi:10.1016/S0140-6736(18)31793-8

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PRACTICE POINTER

Vulvar itch

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One in 10 women seek help for genital itching at some point in their lifetime.[1] Skin conditions affecting the vulva or genital area are usually responsible.

CPD READING
0.5 HOURS

LEARNING MODULE
See http://learning.bmj.com for linked learning module

This Practice Pointer aims to help non-specialists recognise and treat common dermatological causes of vulvar itch.

A small survey of general practitioners in England, found that most (67% of 107 participants) saw more than five patients each month with vulvar symptoms, predominantly itching.[2] But the true prevalence of symptoms is likely to be underestimated as patients may be embarrassed, and/or use over the counter creams and products for symptomatic relief.

WHAT YOU NEED TO KNOW

- Suspect inflammatory skin diseases in women with itching in the genital area
- A history of using feminine hygiene products, latex condoms, lubricants, or fragrances may suggest irritant contact dermatitis
- Look for concomitant skin lesions elsewhere on the body which may provide clues to a diagnosis of seborrhoeic dermatitis, psoriasis, or lichen planus
- Erosion of vulvar architecture is seen in lichen planus and severe lichen sclerosus
- Urgently refer patients with suspicious lesions such as ulceration, lump, or swelling in the vulva, or lesions in the vagina or cervix for biopsy to rule out malignancy

EDUCATION INTO PRACTICE

- What diagnoses would you consider in females presenting with genital itch?
- How would you distinguish between these conditions?
- When would you consider referring the patient?

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

A patient kindly shared her experience living with this condition (see Patient perspective). An advocate for patients with atopic dermatitis reviewed this manuscript and indicated how treatment adherence is important. He had useful input into clarifying aspects of the treatment—eg, emollient usage, topical steroids, and antihistamines. He suggested specifying how these treatments are to be used, particularly in relation to menstrual cycles, intercourse, and in the presence of pubic hair, and any considerations for pregnant and lactating women. We have added relevant information on these aspects and have also mentioned additional resources for patients. We thank these patients for their contribution.

What are common dermatological causes of vulvar itch?

Box 1 | Common skin irritants[3-5]

- Latex condoms
- Lubricants—spermicides, preservatives, anaesthetics
- Toiletries—preservatives or stabilisers—eg, quaternium-15, propylene glycol
- Topical treatments—corticosteroids, antimicrobials, anaesthetics, preservatives, or stabilisers
- Fragrances

Eczematous diseases

Irritant contact dermatitis can occur after skin contact with irritating chemicals—for example, detergents, fragrances, and lubricants (box 1). It is a particular problem in women with urinary incontinence.[3 4]

The genital area is often unaffected in patients with atopic dermatitis. However, repeated rubbing and scratching can result in lichen simplex chronicus, characterised by darkened and thickened skin. Lichenification usually affects the hair bearing portion of the labia majora.

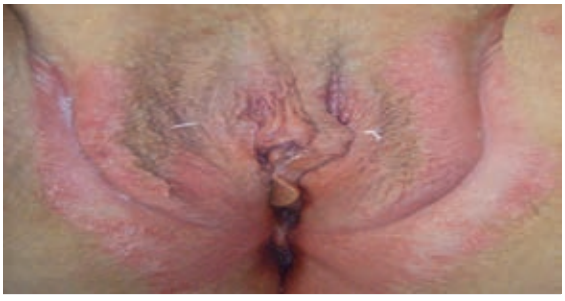

Fig 1 | Genital psoriasis

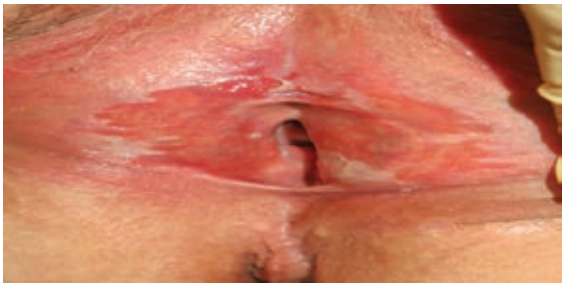

Fig 2 | Lichen planus

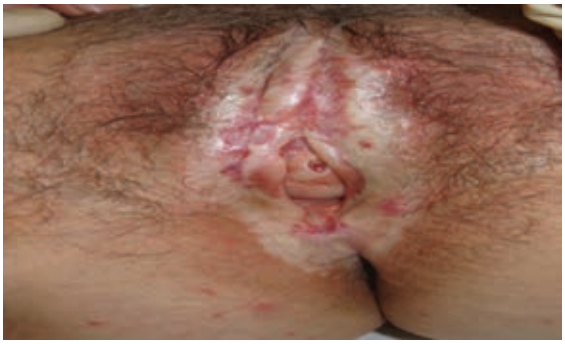

Fig 3 | Lichen sclerosus

Key points in history taking[10]

You might ask	Key points
Can you tell me about your symptoms? How long have you had these symptoms? Have you noticed any factors that worsen or relieve symptoms?	Itch, soreness, pain during urination (dysuria), vaginal discharge
How do these symptoms affect your sexual life?	Dyspareunia, splitting, bleeding during or after sexual intercourse can indicate an inflammatory dermatosis Ask about dyspareunia—"Do you experience pain during or after intercourse?" If so, ask if this is pain on superficial penetration (felt at the vaginal opening) or deep penetration (deep in the pelvis)
Do you experience incontinence—eg, leakage of urine during exercise or straining?	Dribbling or incontinence can cause skin irritation or dermatitis; associated discomfort may indicate an inflammatory process—eg, lichen sclerosus
Do you have a regular sexual partner? Sexually transmitted infection (STI) risk assessment	Dermatosis and STIs can coexist or a woman with a pre-existing dermatosis may contract an STI
Do you have skin complaints elsewhere? (extra-genital skin conditions)	Coexisting skin lesions may offer important clues to the diagnosis— eg, a patch of psoriasis on elbows may be a clue to genital psoriasis
Have you come into contact with any potential irritants or allergens?	Eg, feminine hygiene products, soaps, shower gels, lubricants, latex condoms. See box 1 for common irritants
Are you on any medications currently? (oral or topical) What treatments have you tried previously? How did you use these?	History of previous or current hormonal replacement (menopausal women are more predisposed to have vaginal dryness). Previous trial of treatments including over-the-counter agents
Do you have any relevant personal or family history? Or any systemic illnesses?	History of atopy (asthma, hay fever, eczema), psoriasis, inflammatory bowel diseases, Behçet's disease, bullous skin conditions
Obstetric/gynaecological history Ask about menstrual cycles and fertility issues Previous pregnancies Cervical smear history Menopause	Previous pregnancy and delivery history—eg, normal delivery requiring episiotomy may leave scarring History of abnormal cervical smears Vaginal dryness is more common in post-menopausal women and can cause itching Lichen simplex chronicus and lichen sclerosus are more common in older women

Vulvar seborrhoeic dermatitis

An erythematous scaly rash is seen in the genital area. Concomitant characteristic lesions on the scalp, face (eyebrows, glabella, and nasolabial folds), and trunk provide a clue to the diagnosis.

Genital psoriasis

About a third of patients with psoriasis report genital involvement.[8] Patients often describe itch, stinging sensation, pain during intercourse, and worsening of symptoms after intercourse. Symmetrical erythematous scaly plaques may be seen in the genital area (fig 1).

Lichen planus

Approximately 20% of patients with lichen planus have genital involvement.[6] Patients may be asymptomatic or report itch, soreness, burning, and dyspareunia. Scarring, red, erosive, or atrophic areas are localised on the vestibule, labia minora, and clitoris (fig 2). Architectural alterations may result from interlabial or clitoral adhesions. Inspect oral mucosa for networks of fine white lines (Wickham's striae) which provide a clue to the diagnosis. Ask about dysphagia as this may suggest oesophageal involvement. Complications include scarring and risk of squamous cell carcinoma.[3]

Lichen sclerosus

This is a chronic scarring inflammatory disease that frequently affects the anogenital skin. Patients may be asymptomatic or report itch, dyspareunia, and poor urinary stream. Genital skin may have atrophic scarring with a "cigarette paper" appearance, which can extend to the perianal area with a classic "figure of eight" distribution[3 9] (fig 3). Severe lichen sclerosus can result in loss of architecture with clitoral resorption, fissuring, and erosions. Involvement of the vagina excludes lichen sclerosus.[3] Left untreated, patients may develop scarring and possible malignant change to squamous cell carcinoma.[3 9]

What features in the history and examination should I focus on?

Some women may not be comfortable talking about their genital problems or sexual history. Assure them that all information gathered during the consultation is confidential and will be important to diagnose and manage their symptoms. The table lists key points to cover in history.

Opportunistic sexual health screening can help, such as when the patient attends for a pill check, smear, or breast examination. You might say, "Just so you know, I ask these questions to all my adult patients, regardless of age, gender, and marital status. These questions relate to your sexual health and genital skin. Do you have any questions before we start?" This can open the door for more specific questions related to genital symptoms such as pruritus, dyspareunia, and other problems such as sexual dysfunction.

Examination

Examine the skin all over the body to look for coexisting inflammatory rashes—eg, psoriasis or dermatitis.

Ask the patient if they would agree to a genital and speculum examination. Offer a chaperone. Inspect the genital region, vulvar skin, and vestibular tissue.

- Architectural changes—eg, loss of clitoral hood and erosions may suggest lichen sclerosus.
- Atrophic plaques with vaginal involvement suggests lichen planus.
- Erythema, scales, plaques, or excoriation marks suggest contact dermatitis.
- Thickened skin changes (lichenification) along the mons and labia majora may suggest vulval dermatitis or lichen simplex chronicus.
- Erythematous shiny plaques along skin folds is more likely psoriasis.[11]

Use a speculum to visualise the vagina and cervix. A discharge may indicate infection. Vaginal erosions with patchy erythematous friable skin is suggestive of erosive lichen planus. Lesions on the cervix or vagina require further assessment to rule out neoplasia.[3-11]

What investigations to consider?

Diagnosis is largely clinical, and there may be no further investigations needed.

Skin swabs are useful in patients with vaginal discharge to identify infection. Biochemical tests may be relevant in patients with suspected lichen sclerosus and rarely lichen planus because of associated autoimmune diseases (eg, thyroid disease, diabetes).[3] Patch testing is useful if allergic contact dermatitis is suspected and symptoms are not settling after adequate treatment.[12]

How is it treated?

General advice

Advise measures to maintain genital hygiene and to avoid scratching as this can worsen the rash. Tight fitting garments may irritate the area, so suggest that the patient avoid these. Cotton undergarments are preferred. Explain possible triggers and suggest avoiding use of irritants such as spermicidal lubricated condoms, soap, shampoo, and bubble baths. Simple emollients can be used as a soap substitute and moisturiser.

Advise good skin care during menses. Cotton pads, tampons, and liners may be preferred. Advise patients to change these frequently to avoid irritating the genital skin. Urinating and rinsing the vulva with cool water after intercourse can help prevent infection.

In patients with severe night itch consider a mild sedating antihistamine—eg, hydroxyzine.[3 5] Improve the skin barrier function with a bland emollient—eg, emulsifying ointment or paraffin based emollients, which are safe and reduce[3 4] symptoms.

Treatment

Follow general guidance for specific skin conditions. Skin conditions with generalised involvement may require referral to a dermatologist (fig 4).

Little evidence exists on specific management of genital dermatoses. The infographic summarises treatment options and the level of evidence for these. Expert committees recommend potent to very potent topical corticosteroid ointment in persistent cases of eczema and in seborrhoeic dermatitis, genital psoriasis, lichen planus, and lichen sclerosus.[3-13] These are to be applied daily for 4-8 weeks until symptoms are controlled. Half of a fingertip unit is sufficient to cover the whole genital area. Medicated solution, foams, or gels may be more convenient and effective if pubic hair is present.

Set realistic expectations about treatment—symptoms may recur in most of these conditions. Maintenance treatment with twice weekly application of ointment may be required alongside general care.

Box 2 | When to refer

- Risk factors for a sexually transmitted infection—refer to a sexual health clinic
- Diagnostic uncertainty
- Persistent symptoms with poor response to treatment

For biopsy:

- If the clinical diagnosis is uncertain, clinico-pathological correlation is essential
- Recalcitrant chronic disease failing first line treatments
- Unusual lump, lesion, ulceration—urgent referral to exclude premalignant or malignant transformation
- To exclude an abnormal melanocytic proliferation in pigmented areas, especially in patients with history of lichen sclerosus
- In patients with lichen sclerosus or lichen planus, any erosive, hyperkeratotic, erythematous or new warty or papular lesions should be assessed given risk of squamous cell carcinoma
- For patch testing in suspected allergic contact dermatitis if symptoms are not settling with treatment
- Urinary incontinence—refer to urogenital specialist

Pregnant and lactating women[3]

Seek specialist advice on treatment options for pregnant and breastfeeding women. Emollients are considered safe to use during pregnancy and lactation. Antihistamines are best avoided; however, if necessary the antihistamines of choice are chloropenamine or diphenhydramine. Topical steroids are safe but should be used minimally and at the lowest potency required to achieve resolution of symptoms. For psoriasis, avoid topical vitamin D analogueues in pregnancy and breastfeeding. Calcineurin inhibitors (tacrolimus, pimecrolimus) are not licensed for use in pregnant or breastfeeding mothers. Topical coal tar is considered safe for short periods of time during pregnancy. Seek specialist advice on treatment options for pregnant and breastfeeding women.

Competing interests: None declared.

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Find the full version with references at http://dx.doi.org/10.1136/bmj.l83

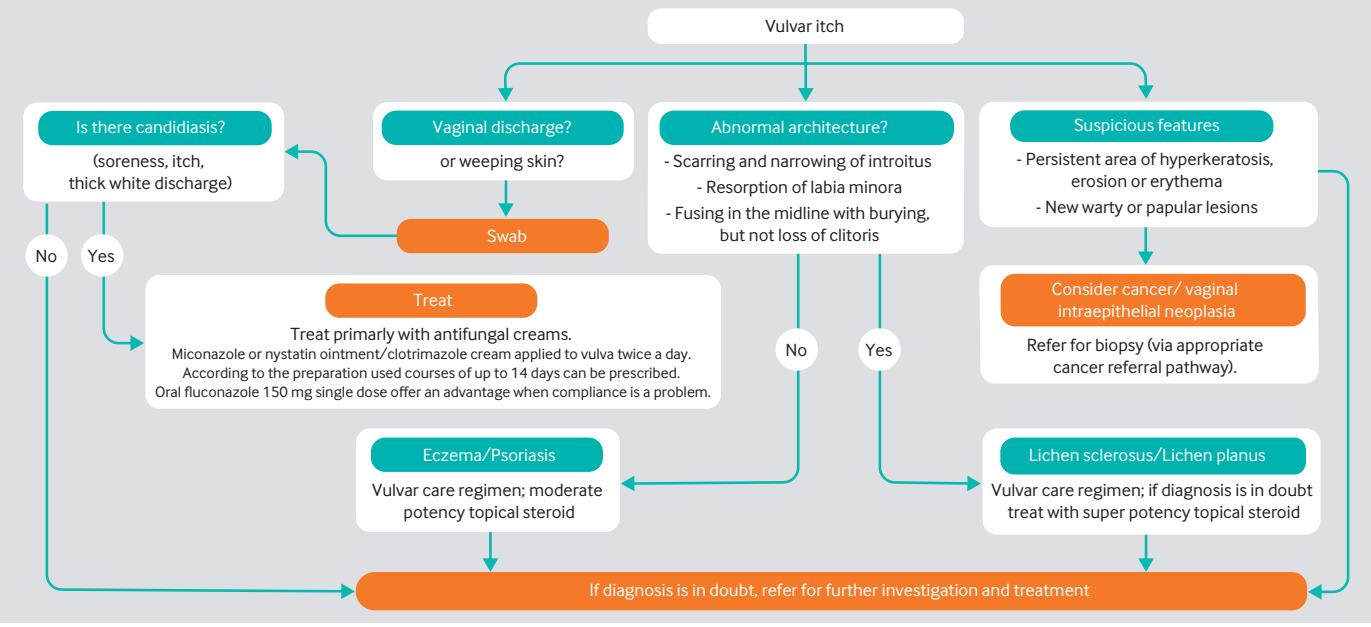

Fig 4 | Management of vulval itch in primary care and when to refer to secondary care. Reproduced with permission from Elsevier publishing, copyright 2017

thebmj Visual summary

Treating vulvar itch

Topical management of common dermatological causes

This infographic summarises treatment options and levels of evidence for seven common causes of vulvar itch. Generally, there is very little evidence specifically on management of genital dermatoses, so most guidance is based on expert opinion, or extrapolated from indirect evidence.

EVIDENCE QUALITY

Level of evidence

- Ib: At least one randomised controlled trial
- IIb: At least one other type of study
- III: Non-experimental descriptive studies
- IV: Expert opinion and/or clinical experience
- -: No evidence available

Grading of recommendation

- A: At least one randomised control trial, good quality and consistency
- B: Well conducted clinical studies
- C: Absence of directly applicable studies of good quality
- -: No evidence available

ATOPIC DERMATITIS	CONTACT DERMATITIS	SEBORRHOEIC DERMATITIS	LICHEN SIMPLEX CHRONICUS	GENITAL PSORIASIS	LICHEN PLANUS	LICHEN SCLEROSUS
Dryness, itch, soreness, and discomfort. Symmetrical erythema and excoriation	Localised burning, stinging, itching, redness, and swelling, which can occur due to skin contact with irritating chemicals	Erythematous scaly rash in genital area. Often presents with concomitant lesions on the scalp, face, and trunk	May be caused by repeated scratching. Lichenification usually affects the hair bearing portion of the labia majora	Symmetrical erythematous scaly plaques. Often concomitant psoriasis changes affecting scalp, nails, and extensor surfaces	Patients may be asymptomatic or report itch, soreness, burning, and dyspareunia	Pruritic, chronic scarring inflammatory dermatosis with a predilection for the anogenital skin

Offer general advice

Maintain genital hygiene

Avoid scratching
as this can worsen the rash

Avoid tight fitting garments
Cotton undergarments may be preferred

Avoid use of potential irritants

- Spermicidal lubricated condoms
- Soap
- Shampoo
- Bubble baths
- Cleansers
- Fragrances
- Wet wipes

Simple emollients can be used as a soap substitute and moisturiser — IV/C

Sedating antihistamine
Can be given at night to help avoid scratching — -/-

Infections
Treat coexisting infections with:
Combination steroid and antibacterial — IV/C

Offer topical steroids

Examples are provided below, but other steroids are available. Consult your relevant formulary documentation for alternatives

Mild cases Hydrocortisone acetate 1% **Moderate cases** Betamethasone valerate 0.025% **Severe cases** Mometasone furoate 0.1 % Daily for 7-10 days until the symptoms and signs settle IV/C	Combination steroid and antifungal Twice daily for 1-2 weeks then reassess IV/C	**Mild cases** Betamethasone valerate 0.025% **More severe cases** Mometasone furoate 0.1% **Very severe cases** Clobetasol propionate 0.05% Daily for 7-10 days until the symptoms and signs settle IV/C	**Mid-potency steroid** Clobetasone butyrate 0.05% Followed by **Low potency steroid** Hydrocortisone acetate 1% Once daily for up to four weeks then step down to twice weekly maintenance I/B	**Very potent steroid** Clobetasol propionate 0.05% Once daily for 4-8 weeks then taper according to response Maintenence with less frequent use of very potent steroid such as clobetasol propionate or a weaker strength topical steroid IIb/B	**Potent steroid** Mometasone furoate 0.1% or **Very potent steroid** Clobetasol propionate 0.05% Once daily for one month Alternate days for one month Twice weekly for one month Follow-up after three months Ib/B

If symptoms recur, topical steroid treatment can be initiated (offered) again

For atopic dermatitis, lichen simplex chronicus, and genital psoriasis, these agents can be prescribed unlicensed by specialists:

- Topical tacrolimus (0.1% Protopic) — IV/C
- Topical pimecrolimus (1% Elidel) — IV/C
- III/-

For genital psoriasis, these agents can be used as monotherapy or in combination with topical steroids:

- Topical vitamin D analogues — I/B
- Coal tar preparation — III/-

10-MINUTE CONSULTATION

Chronic rhinosinusitis

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CPD READING
0.5 HOURS

A 35 year old hairdresser presents to her general practitioner with a two year history of a blocked and runny nose. When she tried using an over-the-counter beclomethasone nasal spray, she did not notice any improvement. As she cannot breathe through her nose, she finds it hard to get to sleep and to exercise.

Chronic rhinosinusitis is a common condition with a prevalence of 10.9%.[1] It can have a major impact on quality of life, affecting sleep, exercise, and activity. Intranasal treatments are effective for most people[2] but need to be used correctly and regularly. This article offers an evidence based approach to diagnosis and management.

Box 1 | Red flag clinical features for chronic rhinosinusitis[2]

- Unilateral symptoms
- Cacosmia (perceived foul smell)
- Crusting (persistent)
- Epistaxis
- Orbital complications (periorbital oedema or erythema, reduced visual acuity, diplopia, ophthalmoplegia, globe displacement)
- Neurological complications (severe frontal headache or swelling, meningism, focal neurology)

WHAT YOU NEED TO KNOW

- First line treatment options for chronic rhinosinusitis are intranasal corticosteroids and intranasal saline rinsing, usually in combination
- Persistent use of over-the-counter topical nasal decongestant causes rebound nasal congestion, known as rhinitis medicamentosa
- Sinus surgery is not a curative treatment, but is aimed at unblocking sinonasal pathways and spaces to allow topical nasal medication to be more effective

What you should cover

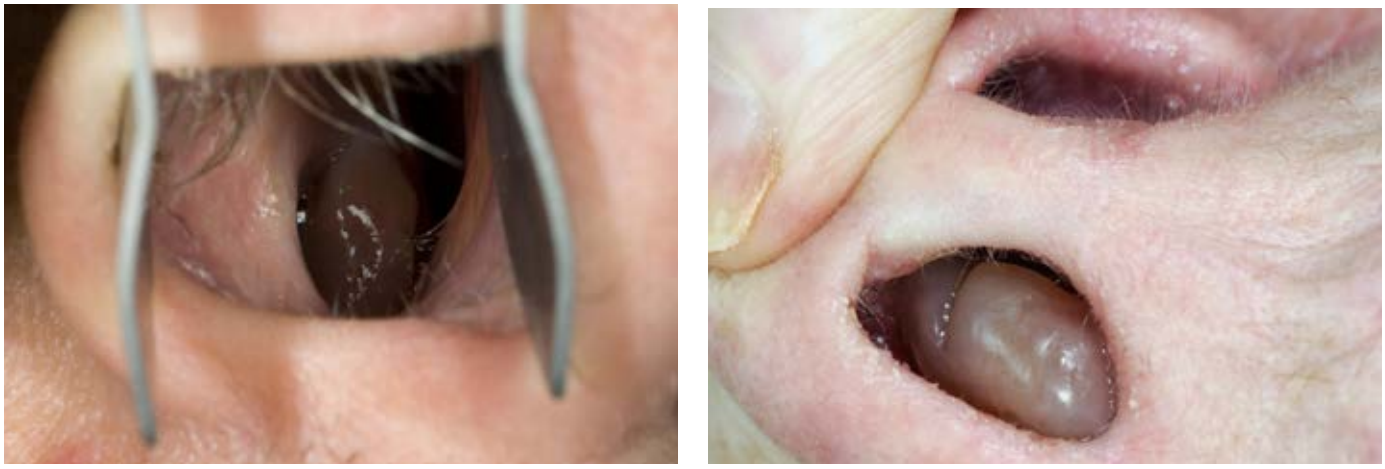
Aim to determine any precipitating factors or associated disease, and differentiate between structural and inflammatory nasal blockage (although both can be present). Try to establish the effect that symptoms are having on quality of life to help direct joint decision making and stepwise treatment. Acknowledging this impact can be useful in the consultation, as patients often feel embarrassed for seeking healthcare for a chronically blocked or runny nose, as they worry that such symptoms may be perceived as trivial.

- *Is the nasal blockage unilateral, alternating or bilateral?* Unilateral blockage is a structural problem, such as a congenital or post-traumatic septal deviation, polyp, or tumour. Referral for nasal endoscopy is indicated if the cause of a unilateral blockage is not evident on anterior rhinoscopy. Alternating blockage is classically due to mucosal inflammation. Bilateral blockage may harbour both mucosal and structural issues.
- *Is bilateral rhinorrhoea clear or mucopurulent?* Clear rhinorrhoea suggests allergic or vasomotor aetiology, whereas mucopurulent rhinorrhoea may indicate infection.
- *Is there associated itching, sneezing, and excessive watering of the eyes?* These suggest an allergic cause. Are such symptoms seasonal or intermittent (pollens, moulds) or are they perennial or persistent (house dust mite, animal dander)?
- *Is there an occupational or environmental trigger, including active or passive smoking?*
- *Is there secondary loss of smell (hyposmia) or facial pain?* This is common and can help localise the disease, but it can also raise suspicion of a neurological cause.
- *Assess severity of symptoms into mild or moderate-severe.* Moderate and severe symptoms typically affect sleep, daily activities, sport and leisure, and work or school and usually require stepwise treatment decided jointly with the patient.
- *Is there associated history of atopy or asthma?*
- *Have there been any hormonal changes?* Pregnancy, menstruation, and oral contraception, as well as hypothyroidism, can give rise to rhinitic symptoms.[3]
- *Ask about long term use of over-the-counter topical nasal decongestant.* This is common and, in our experience, rarely volunteered, and causes rebound nasal congestion (rhinitis medicamentosa).[4]
- *Check drug history*. Various medications can have side effects of rhinitic symptoms. These include particular non-steroidal anti-inflammatory drugs, antihypertensives, antidepressants, and sedatives.[4]
- *Check for red flag clinical features*. Red flags, which are drawn from the ENT-UK and Royal College of Surgeons of England 2016 guideline,[2] are listed in box 1. Orbital and neurological complications are clearly emergencies, but the other symptoms require urgent ENT referral if they remain unexplained.

Examination

Without endoscopy, examination is limited to the anterior nasal cavity, but it remains an important part of the assessment.

- Anterior rhinoscopy can be performed in primary care by using an otoscope inserted into each nostril, allowing examination of the septum, inferior turbinates, mucosal colour and moisture, and whether any rhinorrhoea is clear or mucopurulent.
- Large nasal polyps may be evident. These typically look like peeled greyish grapes, and the patient would have no sensation on palpation of them. Turbinates are pink or red and painful to probe (see fig 1).
- Be wary of persistent unilateral signs, such as polyps, crusting, epistaxis or pus, which may indicate granulomatous disease or malignancy.



DR P. MARAZZI/SPL

Fig 1 | Left: Right inferior turbinate seen arising from the lateral nasal wall. It is pink or red in colour and painful if probed. Right: Nasal polyp, with characteristic appearance often likened to a peeled greyish grape. It is not painful to touch.

What you should do

Making a diagnosis

A diagnosis of chronic rhinosinusitis, defined as inflammation of the nose and paranasal sinuses, can be made if there are two or more persistent symptoms (lasting at least 12 weeks), one of which should be nasal obstruction or nasal discharge.[5] Secondary symptoms are hyposmia or facial pain.

First line treatment

Offer an intranasal corticosteroid.[5] A nasal spray is usually sufficient for first line treatment. Mometasone and fluticasone are preferred because they have negligible bioavailability and so have less potential to cause the characteristic systemic side effects of steroids.[6] If sprays prove ineffective over the next few months, nasal drops such as fluticasone or beclomethasone preparations can be used to kick-start benefit in recalcitrant cases, but neither are recommended for long term use within primary care. A course for two weeks in primary care is typical for drops in our experience before referral to secondary care for review.

For people with presumptive or proven allergic aetiology, first line treatment is a nasal steroid, either alone or with an oral antihistamine. A second line option is a fluticasone and azelastine combination nasal spray.

Advice on using a nasal corticosteroid

Nasal sprays should be used regularly and not for rescue, as they will then fail to provide long term preventive benefit. The spray should be delivered with the nozzle directed away from the midline septum and aiming towards the ear on the same side. Breathe in gently after spraying—don't sniff deeply.

Nasal drops should be delivered with the head upside-down (most easily by hanging off the edge of a bed) and holding this position for two minutes.

Saline irrigation

Nasal saline irrigation is an excellent low risk treatment. A systematic review and meta-analysis found that they are helpful in relieving symptoms of chronic rhinosinusitis when used alone or as an adjunct to intranasal steroids.[7] When it is used as an adjunct, do saline irrigation before using the steroid spray. Saline sprays and the more effective, high volume irrigation devices are widely available to purchase. Saline irrigation solution can be bought pre-prepared or made at home by mixing one teaspoon of sea salt and half a teaspoon of baking soda into a pint of cooled boiled water.

Medical polypectomy

If bilateral nasal polyps are clear on anterior rhinoscopy offer "medical polypectomy" with oral prednisolone (0.5 mg/kg for 5-10 days) followed by nasal steroid drops may be considered. A systematic review and meta-analysis found an improvement in health related quality of life and symptom severity in patients with chronic rhinosinusitis and nasal polyps who took oral corticosteroids compared with placebo or no treatment.[8] However, the quality of evidence supporting this finding is low.

Macrolide antibiotics

Because of their immunomodulatory effects, macrolide antibiotics have been identified as a treatment option for chronic rhinosinusitis. However, they are not recommended in primary care due to the limited evidence of benefit and risks of increasing antibiotic resistance.[5 9]

Follow-up and referral

Long term medical treatment is typically indicated to manage symptoms. If symptoms are not improving within weeks, check compliance and device technique. If there is unsatisfactory improvement after three months of medical treatment despite diligent compliance and scrupulous technique, then offer referral to ENT. In secondary care nasal endoscopy, allergy testing, and imaging studies can be considered with a view towards potential surgical treatment. Sinus surgery is not curative but serves to unblock sinonasal pathways and spaces, enabling optimal delivery and effectiveness of topical nasal medication.

Competing interests: None declared.

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Find the full version with references at http://dx.doi.org/10.1136/bmj.l131

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

We carried out semi-structured interviews with six patients with chronic rhinosinusitis. They were keen to stress that they often felt embarrassed seeking help for a chronically blocked or runny nose and feared that their concerns would be perceived as trivial.

ROSE LLOYD

WHAT YOU NEED TO KNOW

- Language which implies that complications are preventable can make people feel blamed if a complication develops
- Talking about reducing complications and making clear that they can happen despite best self care could encourage people to speak more openly and understand that they are not at fault
- Talking about daily care rather than the prevention of complications is an alternative to encourage day-to-day attention to reducing the risk of complications

EDUCATION INTO PRACTICE

- How do you encourage patients to try and reduce the risk of complications?
- What language can you use to talk about complications?
- What support or services can you offer patients who have developed a complication?

CPD READING
0.5 HOURS

WHAT YOUR PATIENT IS THINKING

#talkaboutcomplications

Renza Scibilia and **Chris Aldred** explain how to reframe the way complications are discussed

People with diabetes and other chronic conditions know all about disease related complications. They are told about them by healthcare professionals, organisations, charities, public health campaigns, and the media. Often the information is presented in such a way as to suggest that the affected individual is to blame for the development of complications because he or she failed to manage the condition "correctly."

In our combined 45 years of having type 1 diabetes we have had less than ideal conversations about complications with our healthcare professionals.

Blame, shame, and complications

Last year I (Chris) received a diagnosis of a foot ulcer. Using social media and the hashtag #TalkAboutComplications, I started to tell the story of my experience after this diagnosis. The huge response from people wanting to share their stories showed the interest in discussing complications in an open way.

A recurring theme was feeling "blamed and shamed" by healthcare professionals when a complication had occurred. It made individuals feel that they had in some way failed. I (Renza) have already done work to explore the complex but clear link between the choice of words when discussing complications and how people feel about their complications and their willingness to speak to peers and healthcare professionals. The use of blame and shame language results in people feeling unable to talk about their concerns to anyone.

Healthcare professionals often tell people with diabetes that complications can be prevented by self management within a prescribed target and undergoing regular screening. This then leads to the belief that if complications do develop it is because someone has not "looked after" herself or himself properly, and hence this is a failure in self care.

Risk reduction rather than elimination

A subtle change in the way words are used could make a difference. Often the focus and language around complications are on prevention rather than on risk reduction. The understanding is that no matter how well a condition is managed, there is always some risk that a complication could develop. Even if the self management of diabetes is not ideal, there is no value in apportioning blame. People can become demotivated if they feel blamed or that they have "failed"; rather than seek treatment they might stop seeing the healthcare team completely. Any presumption that people have not "looked after themselves" only adds more distress to a potentially difficult situation.

Complications should not be a sugar coated topic of conversation, but equally the topic should not be avoided. Complications need to be talked about as openly as possible but in such a way as to encourage people to join the discussion.

"Care" rather than "complications"

Changing the language used from "complications" to "care" can perhaps reduce the fear and turn the focus to risk minimisation. Visits to ophthalmologists are carried out to care for eyes and daily foot checks are done to care for feet. Encouraging and acknowledging this sort of care helps in the understanding that people have done all they could to minimise risk and to not feel blamed or blame themselves. Then energy can be spent on treating complications.

As #TalkAboutComplications grew, it was interesting to discover how many people had never spoken about complications. Something we have learnt through years of interaction with other people with diabetes is that if they do not talk about certain issues and topics among themselves, they are not likely to be talking about them with their healthcare professionals. Complications are a reality for many people living with diabetes; and the possibility of complications is present all the time. If choice of words focused on care, people with chronic conditions such as diabetes would be more engaged with their own care and feel more supported. They would then feel encouraged to work with their healthcare professionals to minimise the risk of complications, and to treat early and effectively those that do occur.

Twitter @RenzaS @Grumpy_Pumper

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CASE REVIEW

A man having a convulsion

A 40 year old right handed man was admitted to the emergency department after experiencing a convulsion at home. During the episode, he lost consciousness and experienced twitching of the left limbs. He regained consciousness after a few minutes, with no post-ictal drowsiness. He had no further seizures and reported no recent head injury, medication use, or recreational drug use. He had no fever, weight loss, or malaise. Physical examination, including neurological examination, was normal.

Urgent non-contrast computed tomography of the brain showed cortical thickening in the right parietal lobe with adjacent ill defined white matter hypodense changes; there was no hyperdensity.

Blood tests, including full blood counts, a liver function test, electrolytes, urea, and C-reactive protein levels, were normal.

Further investigation with magnetic resonance imaging (MRI) of the brain was arranged (figs 1, 2).

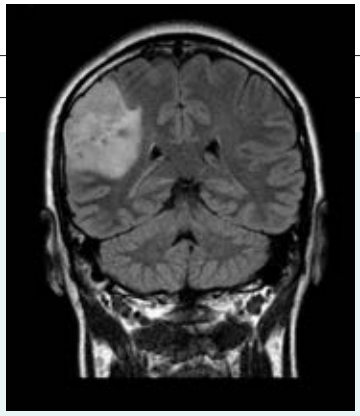


Fig 1 | Magnetic resonance imaging (MRI) of the brain with fluid attenuation inversion recovery (FLAIR)

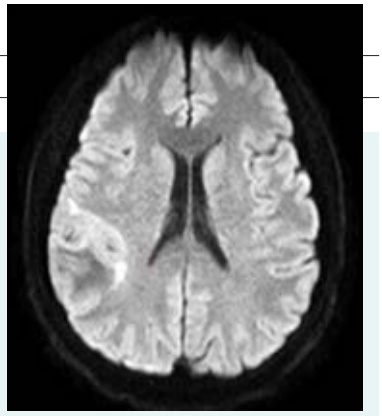


Fig 2 | Axial diffusion weighted MRI of brain

1 What are the differential diagnoses of seizures with changes on brain MRI and computed tomography?

2 What is the most likely diagnosis?

3 How would you manage this condition?

Submitted by Shing Fung Lee and Frank Chi Sing Wong

Patient consent obtained.

Cite this as: *BMJ* 2019;364:k5365

If you would like to write a Case Review or Spot Diagnosis for Endgames, please see our author guidelines at http://bit.ly/29HCBAL and submit online at http://bit.ly/29yyGSx

answers

For extra material, including patient outcome, go to bmj.com/endgames

CASE REVIEW **A man having a convulsion**

1 What are the differential diagnoses of seizures with changes on brain MRI and computed tomography?

- Differential diagnoses include malignancy (eg, glioma or central nervous system lymphoma), acute/subacute infarction, brain abscess, and tumefactive demyelinating lesions. You can differentiate between these with further evaluation of the computed tomography and MRI changes.

2 What is the most likely diagnosis?

- Primary brain tumour. Hypodense changes on computed tomography and an ill defined intra-axial mass on MRI (fig 3, red arrow) suggest a glioma.
- The absence of hyperdensity on computed tomography makes acute haemorrhage or calcification unlikely.
- The absence of a well defined ring enhancing lesion on computed tomography and MRI makes brain abscess unlikely.
- The absence of white matter centred contrast enhancement with an open ring enhancement pattern on MRI makes a tumefactive demyelinating lesion unlikely.

3 How would you manage this condition?

- Offer prompt anticonvulsants, analgesics, and, if appropriate, steroids, to control the seizures and symptoms such as headache.
- Aggressive surgical resection is the recommended treatment modality; it provides relief from increased intracranial pressure symptoms, leading to seizure control, and reducing the need for anti-epileptic drugs.[4] During surgery, tissue for a histological diagnosis can also be obtained.
- Consider adjuvant radiotherapy and chemotherapy, based on clinical risk and molecular genetic profiles.[5]

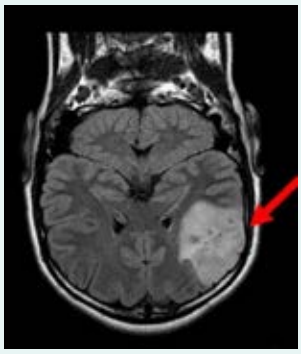


Fig 3 | MRI with FLAIR showing an ill defined intra-axial mass in the right high parietal region (red arrow) with perilesional oedema. The lesion involves the right post-central gyrus as well as the superior and inferior right parietal lobules. It has heterogeneous signal intensity. There is no evidence of perilesional oedema, hydrocephalus, or structural midline shift

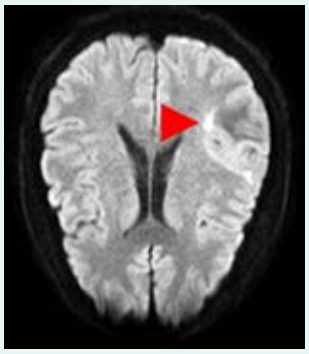


Fig 4 | Axial diffusion weighted MRI brain showing areas of restricted diffusion at the medial side of the lesion (red arrowhead)

CPD READING 0.5 HOURS

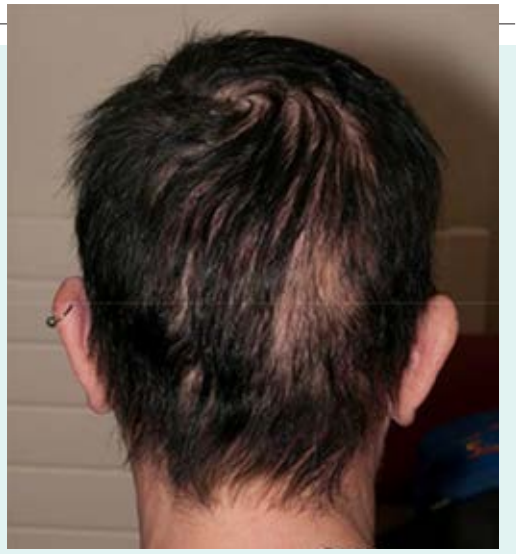
You can record CPD points for reading any article. We suggest half an hour to read and reflect on each.

LEARNING MODULE

Articles with a "learning module" logo have a linked BMJ Learning module at http://learning.bmj.com.

MINERVA

An unusual presentation of syphilis



A 51 year old heterosexual woman presented to her general practitioner with "moth eaten" alopecia for three months. Serology for syphilis, alongside routine bloods, showed infectious secondary syphilis.

The patient received treatment with intramuscular benzathine penicillin at the sexual health clinic.

Other unusual presentations of syphilis include palmar rash, arthralgia, and lymphadenopathy.

Consider syphilis even in the absence of typical risk factors. Secondary syphilis symptoms resolve spontaneously but untreated patients risk developing the cardiac and neurological complications of tertiary syphilis.

The incidence of syphilis increased by 148% in England between 2008 and 2017.

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Patient consent obtained.

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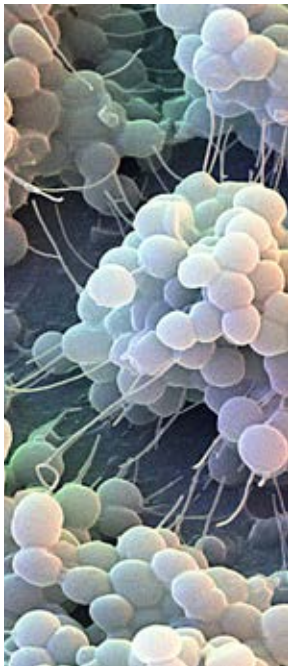
Microbial guardians of skin health



We hear a lot about micro-organisms in the functioning of the large bowel. A Perspective in *Science* draws attention to the skin as another organ where bacteria have an important part to play in the physiology of a barrier surface (*Science*). *Staphylococcus epidermidis* is one of the dominant organisms, and its interactions with keratinocytes, T cells, and other skin micro-organisms contribute to skin immunity and antimicrobial defence.

Old drugs, new indications

An analysis of data from Swedish national registers discovered that rates of hospitalisation and self harm among people with bipolar disorder, schizophrenia, or non-affective psychosis were lower when they happened to be taking statins, calcium channel antagonists, or metformin (*JAMA Psych*). The size of the reduction varied by drug and by diagnosis but, at 20 to 30%, it's large enough to be worth taking seriously. These drugs are widely used and are relatively cheap and safe.

Platelet function and diabetes

There is debate about the effectiveness of aspirin for primary prevention of cardiovascular disease in people with diabetes. Some studies have suggested that the benefits may be less than in other high risk groups. However, an investigation of platelet function in 2000 adults finds that, although in vivo levels of platelet activation (estimated by urinary thromboxane B2) tend to be higher in people with diabetes, the reduction in activation after aspirin is similar in those with and without diabetes (*J Clin Endocrinol Metab*). The same was true for in vitro measures of platelet function.

Cardiovascular fitness and stroke

It's no surprise to learn that when middle aged men improve their level of physical fitness they lower their risk of stroke. But the effect is surprisingly large. A Norwegian study recruited 2000 men aged 40 to 59, measured their fitness with a bicycle ergometer on two occasions seven years apart, and followed them for 30 years (*Stroke*). Those who started unfit but got fitter had less than half the risk of stroke of those who remained unfit. On the other hand, those who started fit but became unfit had twice the risk of those who stayed fit.

Oral insulin

Oral insulin would be more convenient for patients than subcutaneous injection. The difficulty of course is that insulin is a peptide and too large a molecule to cross the gut epithelium. What's more, it's rapidly degraded by proteases in the stomach and intestine. However, these problems may not be insurmountable. A short phase 2 trial of a new oral insulin, which has amino acid substitutions to make it less vulnerable to proteolysis and sodium caprate to promote intestinal absorption, reports that the oral insulin preparation was as good as subcutaneous insulin in improving glycaemic control in patients with type 2 diabetes (*Lancet Diabetes Endocrinol*).

Cite this as: *BMJ* 2019;364:l466