**Taking the pressure off after a stroke**

It seems that aggressive—sorry “intensive”—blood pressure targets in the hours after endovascular thrombectomy for acute ischaemic stroke may not be such a good idea.

An open-label study across 44 hospitals in China randomised 821 patients with raised systolic blood pressure (≥140 mm Hg) after successful reperfusion for acute ischaemic stroke. They were allocated to either a target blood pressure of <120 mm Hg to be achieved within an hour and sustained for 72 hours or a more relaxed target of 140-180 mm Hg. The study was stopped early when an interim review of outcomes found that those receiving the intensive blood pressure management had more early neurological deterioration (odds ratio 1.53 (95% confidence interval 1.18 to 1.97)) and major disability at 90 days (OR 2.07 (1.47 to 2.93)).

**Racial differences in bystander CPR in the US**

A review of 110,054 adults in the United States who had a witnessed out-of-hospital cardiac arrest has found that black or Hispanic people were less likely than white people to receive bystander cardiopulmonary resuscitation (CPR) regardless of whether it occurred in the home or in a public place. Why?

The article discusses several possible factors, including less investment and training in CPR in black and Hispanic communities, differences in language spoken between the ambulance dispatcher and bystander, and implicit and explicit biases among bystanders in public places. The study also found room for improvement in the rates of bystander CPR overall: occurring in under half of cardiac arrests in the home and around 6 in 10 in public places.

**How much oxygen after return of spontaneous circulation?**

How much might the early management of those who have an out-of-hospital cardiac arrest and achieve a return of spontaneous circulation (ROSC)—hopefully after some bystander CPR—make a difference to survival?

Based on previous studies showing that high flow oxygen after ROSC may cause hyperoxaemia and reperfusion injury, researchers in Australia carried out a randomised controlled trial to see if having a lower target oxygen saturation after out-of-hospital arrest and ROSC might lead to improved survival rates. Of the 214 patients in the intervention group (who had a reduced oxygen protocol, titrating peripheral oxygen saturation (SpO2) to 90-94%), 82 (38%) survived to hospital discharge compared with 101 (48%) of the 211 in the standard care group (who received high flow oxygen to maintain an SpO2 of 98-100%).

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**Agonising over the next new drug to treat diabetes and obesity**

The 2022 prize for the drug name that sounds most like a national insurance number goes to LY3437943, which is hoping to become another new treatment for diabetes and obesity. I guess pharma companies don’t bother with names for most drugs until they get past phase 1, at which point the marketing team can call a meeting to come up with some new tongue twisting but vaguely familiar and upbeat sounding name.

“Agonising” over a name for LY3437943 may be appropriate though, since it’s designed as an agonist to not one, not two, but three receptors: glucagon, glucose-dependent insulinotropic polypeptide (GIP), and glucagon-like peptide 1 (GLP-1). This phase 1 trial in the *Lancet* found that LY3437943 had an “acceptable safety profile” and is suitable for once weekly dosing, meaning phase 2 trials can come next.

**Mendelian randomisation gets vitamin D dose**

It’s time for mendelian randomisation to get some time in the sun, as it weighs into the vitamin D debate. There are mountains of observational evidence linking low vitamin D levels to all sorts of ill health, but a glaring lack of evidence that taking vitamin D supplements meaningfully improves most outcomes.

Sceptics often go further and suggest reverse causality may be at play: that low vitamin D levels may be a marker of poor health rather than the cause of it. Results from this study, which uses non-linear mendelian randomisation methods (which I couldn’t explain even if I had the space to do so) on data for 307,601 individuals from UK Biobank supports a causal relationship between vitamin D deficiency and mortality, but also concludes that “although remediation of vitamin D deficiency is essential, supplementation is unlikely to have notable benefits for preventing death when given in surplus to the nutritional requirement.”

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Proton pump inhibitors (PPIs) are one of the most widely used classes of drugs globally, often taken for longer than needed and at high financial cost to society. Among adults living in the community, the point prevalence of PPI use is 7-8% in the UK and Denmark, while rates of use of 40-50% have been reported in older people in Canada and in those living in residential care in Australia. In England, more than 50 million prescriptions for PPIs were issued in 2015.

While PPIs are effective for upper gastrointestinal disorders and may be continued long term (beyond 8 weeks) for specific conditions (box 1), people often continue taking them for years when guidelines recommend 4-8 weeks of treatment or, in the case of gastrointestinal bleeding prophylaxis for critically ill patients, cessation when the patient is no longer critically ill or the risk factor triggering prophylaxis is no longer present (box 2). Approximately a quarter of patients taking PPIs in England continue taking them for more than a year. PPIs are sometimes started and continued long term in situations where there is a lack of robust evidence for efficacy. Approximately 40-85% of people prescribed a PPI medication do not have a documented indication for long term therapy, suggesting the possibility of unnecessary long term use.

In Canada, public drug programmes spent Can$253m on PPIs in 2015. In Australia, over A$200m was spent on government subsidised PPI prescriptions in the 2013-2014 fiscal year. Between 2007 and 2011, $79bn was spent on this class of drugs in the United States.

Pharmaceuticals may negatively affect the environment (such as through the production process and entry into wastewater). Reducing unnecessary medication use via deprescribing has therefore been promoted as a strategy to curb the environmental impact of medications.

Choosing Wisely campaigns, National Institute for Health and Care Excellence (NICE) guidelines, and other expert guidance recommend re-evaluation of long term PPI treatment and, when appropriate, to attempt to deprescribe them (reduce or stop use), the primary goal of which is to reduce unnecessary use and cost and minimise potential adverse effects.

In considering the evidence for deprescribing PPIs, weigh the potential for harm with continued use versus the likelihood that people could successfully reduce or stop a PPI without negative consequences (such as recurrence of symptoms that interfere with daily life).

While PPI medications are considered to be well tolerated with few short term side effects, they should be considered as potential contributors to the following signs and symptoms if they arise or worsen during treatment: headache, rash, dizziness, nausea, diarrhoea, constipation, abdominal pain, flatulence, and low magnesium or vitamin B12 levels.

Observational studies have suggested possible long term increased risk of fractures, enteric infections, chronic kidney disease, and pneumonia, although the evidence for these associations is uncertain and causality.
therefore cannot be assumed.28 12 13 A 2019 randomised controlled trial with three years of follow-up demonstrated an increased risk of enteric infections for PPI-treated patients compared with placebo but found no difference in other safety events.14 A 2022 American Gastroenterological Association review on deprescribing of PPIs suggests that the decision to deprescribe PPIs should be based on the lack of indication for a PPI rather than concern about adverse effects.15 Evidence on deprescribing of PPIs applies primarily to people with non-erosive reflux disease or mild to moderate gastro-oesophageal reflux disease whose symptoms were managed and had no indication for long term PPI therapy.9 35 36 The main problem that patients may encounter when stopping or reducing PPIs is that their symptoms can return. Several strategies for deprescribing PPIs have been studied, shown below.

Lowering the PPI dose—A 2017 systematic review and meta-analysis included as part of a clinical practice guideline7 (based on an update of a Cochrane systematic review) found that lowering the dose of the PPI from healing to maintenance dose led to a small increased risk of symptoms returning compared with continued PPI use, but the difference was not statistically significant (risk difference 60/1000 people; roughly 1 in 10 patients had symptom return with dose lowering).

Tapering PPIs to discontinuation—This strategy can be achieved by reducing the daily frequency or dose or switching to alternate day doses. One randomised controlled trial17 comparing slow tapering with abrupt cessation found that abrupt cessation resulted in more patients restarting a PPI (risk difference 90/1000 people; about 1 in 10 patients restarted PPIs with abrupt cessation).

On-demand PPI use—This refers to daily PPI use only when symptoms appear and stopping when symptoms resolve. A 2017 systematic review18 demonstrated that switching to on-demand PPI use increased the risk of symptoms returning compared with continued PPI use (risk difference 65/1000 people; roughly <1 in 10 patients had symptom return with on-demand prescribing). These findings are consistent with a 2022 systematic review of on-demand PPI use (risk difference for lack of symptom relief with on-demand versus continued PPI use was 120/1000 people; roughly 1 in 10 patients had symptom return with on-demand PPI).19

Abrupt cessation of PPIs—Systematic review evidence suggests abrupt cessation of PPIs also increased the risk of symptom return compared to continued PPI use (risk difference 454 per 1000 persons; about half of patients had symptom return with abrupt cessation).20,21

Switching to histamine (H2)-receptor antagonists—A 2017 systematic review and meta-analysis completed for a clinical practice guideline showed that switching to H2-receptor antagonists increased risk of symptoms returning compared with continuous PPI use (risk difference 180/1000 people; about 1 in 5 patients had symptoms return when switching to H2-receptor antagonists).9 36 Note that these drugs are no longer available in some countries.
Concern about the potential for the reappearance of heartburn or reflux symptoms or precipitating an upper gastrointestinal bleed is often cited by clinicians for their reluctance to deprescribe PPIs. Symptom control (such as for temporary heartburn or reflux) is also a concern for both patients and providers when considering deprescribing. Deprescribing studies have found that rebound acid hypersecretion can occur and that some people will have mild and manageable heartburn or reflux symptoms that typically last a few days to a few weeks.

The risk of gastrointestinal bleed needs to be carefully assessed to ensure people are candidates for deprescribing. Those at moderate or high risk of gastrointestinal bleeding should remain on PPIs long term (box 1). This includes older people taking daily aspirin, because PPIs seem to provide greater protection against gastrointestinal bleeds with advancing age (number needed to treat (NNT) to prevent one upper gastrointestinal bleed over 5 years is 338 for those aged <65 years and 25 for those >85 years). Bleeding risk scoring systems in different patient populations can be used for individual patients to guide decision making.

Deprescribing takes time. Determining the indication for the PPI (especially when there is no requirement for such indications to be documented), assessing whether someone is a candidate for deprescribing, communicating the pros and cons of deprescribing, conducting discussions for shared decision making, and planning and executing a dose reduction strategy are time consuming and likely act as barriers to deprescribing in practice.

How should we change our practice?

In people who are on long term PPIs, identify those who are candidates for PPI deprescribing (box 2). This can be done using electronic medical records reports, flagging refill requests, public education/engagement strategies (such as posters, pamphlets, videos) to prompt people to ask whether they still need a PPI, and even through implementing artificial intelligence involving risk prediction and decision support. We advocate for a shared decision making approach to PPI deprescribing. Patients are generally open to discussions with their physician about PPI deprescribing, and many try on their own to reduce or stop PPI use. A scoping review of patient attitudes towards PPI deprescribing suggests communication about the rationale for deprescribing, pros and cons of options, and tapering and monitoring plans are critical during the deprescribing process.

Approaches to supporting patients with PPI deprescribing include:

- Make patients aware of the option of PPI deprescribing and share the rationale for considering it.
- Outline the different potential PPI deprescribing strategies, discuss the benefits and harms of each strategy and benefits and harms of continued PPI use.
- Discuss patient preferences and reach shared decisions around whether to pursue PPI deprescribing and which deprescribing strategy and timeframe to choose.
- Offer drug-free strategies as outlined in box 3.
- Explain that rebound acid symptoms are possible but that these symptoms do not necessarily imply the return of the underlying condition unless they are severe or frequent.
- Have a plan for how to manage rebound symptoms (for example, use of over-the-counter antacids as needed).
- Make people aware that the PPI can be restarted if necessary—such as on an on-demand basis (taken when needed) or returning to the original dose.
- Develop an explicit plan for restarting the PPI if symptoms return and are bothersome. Ongoing symptoms may also indicate a need to test and treat for Helicobacter pylori (see figure).

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Managing a small burn

John Henry George Antrum, Jennifer Eleanor Galloway, Mohammad Umair Anwar, Sophie Louise Hodson

Burn injuries are a common cause of presentation to hospitals and urgent care centres globally. Most burns can be managed in an outpatient setting with attentive wound care and regular changes of dressings. Inaccurate estimation of the burn size can result in inappropriate referrals to burns centres. Mismanagement of the wound increases the potential for prolonged pain, delayed healing, infection, and excessive scarring.

This clinical update consolidates recent guidelines to help clinicians working in primary and urgent care facilities with assessment and management of small burn wounds. The management of burns from chemical and electrical injuries is not covered in this article.

What is a small burn?

Burns that are ≥10% of the total body surface area (TBSA) in children and ≥15% TBSA in adults require fluid resuscitation and expeditious transfer to a specialist burns service. Burns that are greater than 2% TBSA in children and ≥3% TBSA in adults benefit from management and follow-up at a burns service. This is reflected in the UK guidelines for urgent care centres globally. Most burns can be managed in an outpatient setting with attentive wound care and regular changes of dressings. Inaccurate estimation of the burn size can result in inappropriate referrals to burns centres. Mismanagement of the wound increases the potential for prolonged pain, delayed healing, infection, and excessive scarring.

We consider a small burn to be a cutaneous injury that is <2% total body surface area in children and <3% in adults.

What are the common types of burns?

Scalds and contact burns are the most common type of burn injury in both children and adults. Flame, flash (brief but intense exposure to heat), and chemical burns are more common in adults than children. Flame burns are proportionally much more common in developing countries.

Contact burns—Commonly occur following contact with fire guards, radiators, electric irons, hair straighteners, and kitchen hobs that have not yet cooled. These are often superficial because the reflex withdrawal response limits contact time. Deep burns can occur in those with sensory deficits or episodes of unconsciousness. Deeper burns in vulnerable groups of people raise the possibility of non-accidental injury.

Flame burns—Clothes are protective but can cause deep burns if ignited and not removed quickly. Flame burns with petrol are deeper than those without and are at a higher risk for inhalation injury when in an enclosed space. In an explosion, consider blunt force traumatic injuries in addition to the burn.

Scalds—Caused by hot liquids. Thicker liquids (such as soup) retain heat for longer, causing deeper burns. Ask how recently the liquid was prepared to estimate heat at the point of contact. Again, clothes are protective if removed quickly but can deepen the burn with prolonged contact. Elderly patients can present with deep scalds to the thighs, genitals, and lower abdomen if they have been unable to remove their clothes themselves.

Chemicals—Chemical burns can result from substances used in industry, agriculture, and domestic cleaning.

Electrical injuries—These are divided into low voltage (<1000 V), high voltage (>1000 V), and lightning strikes. Domestic appliances are low voltage (230 V in Europe and 120 V in North America) and have potential to cause significant local cutaneous (entry and exit) wounds and cardiac arrest but less deep tissue damage. High voltage injuries can cause substantial cutaneous and soft tissue damage affecting multiple organ systems. Wet skin can convert a small injury into a serious one.
What are the key features of an initial assessment?

First distinguish minor injuries from potentially life or limb threatening injuries. People with major burns or traumatic injuries are usually identified early and brought directly to A&E by ambulance, though a patient may be unwell with small cutaneous burns, especially with infections, inhalational injuries, and electrical injuries.

A focused burns history will help determine the severity of burn, identify any associated injuries, and determine the need for referral.

Ask how the burn was sustained as burns can occur in the context of other injuries or illnesses, such as collapse (due to a neurological or cardiac condition), or self harm. Detailing the events around the burn will determine if additional investigations or specialist support are required.

Ask when and where the burn was sustained. Patients usually present immediately after sustaining a burn, especially if it is relatively large or painful. Some try to manage the burn themselves initially, with ointments from a chemist or anecdotal home remedies (such as toothpaste or yogurt) and only attend hospital when the burn has changed or become unmanageable. Burns that do not heal within three weeks are at high risk of prominent scarring. 7 11 If the burn happened outdoors or in an unclean environment, then the wound may be contaminated and at risk of infection. Flame burns that occur in confined spaces raise the likelihood of an associated inhalational injury.

Elicit the patient’s vaccination history along with occupation and hand dominance for upper limb burns. Ask about other medical conditions. Patients who struggle with independence will need special arrangements for follow-up.

What are the special considerations in children presenting with burns?

Safeguarding the child is a priority in all paediatric consultations. The possibility of neglect or abuse should always be considered in children and vulnerable populations. Most injuries will be accidental, but any concerning features must be discussed with a paediatrician (box 1). Be mindful that even considerate parents struggle with childcare for various social reasons, and there may be an opportunity to educate the parent(s) or provide additional support in the form of a social worker.

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**Burn depth diagnosis and classification**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Degree</th>
<th>Colour</th>
<th>Blistering</th>
<th>Sensation</th>
<th>Capillary refill</th>
<th>Healing</th>
<th>Include in burn size estimation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidermal (fig a)</td>
<td>First</td>
<td>Pink</td>
<td>No</td>
<td>Painful</td>
<td>Present</td>
<td>7 days</td>
<td>No</td>
</tr>
<tr>
<td>Superficial dermal (fig b)</td>
<td>Second</td>
<td>Pink</td>
<td>Yes</td>
<td>Painful</td>
<td>Present</td>
<td>14 days</td>
<td>Yes</td>
</tr>
<tr>
<td>Mid-dermal (fig c)</td>
<td></td>
<td>Pink or red</td>
<td>Yes</td>
<td>May be reduced</td>
<td>Present (can be diminished)</td>
<td>14-21 days</td>
<td>Yes</td>
</tr>
<tr>
<td>Deep dermal (fig d)</td>
<td></td>
<td>Red or pale, often blotchy</td>
<td>Sometimes</td>
<td>Reduced or absent</td>
<td>Absent – often fixed staining</td>
<td>&gt;21 days</td>
<td>Yes</td>
</tr>
<tr>
<td>Full thickness (fig e)</td>
<td>Third</td>
<td>White (black if charred)</td>
<td>No</td>
<td>Absent</td>
<td>Absent</td>
<td>&gt;21 days</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Box 1 | “Red flags” for non-accidental injury**

- Absent, inconsistent, or unfeasible explanation for the injury
- History inconsistent with the child’s level of mobility or examination findings
- Injury to body areas unlikely to be exposed to hot objects
- Burn wound in the shape of an object
- Delayed presentation (but may also be due to attempts at first aid)
- Lack of parental concern
- Failure to engage with healthcare professionals
- Associated injuries unrelated to the burn (including possible signs of restraint)
- A history of non-engagement, social service involvement, or “red flags”

Burn depths: (a) epidermal with a small area of blistering, (b) superficial dermal, (c) mid-dermal with mild contamination, (d) deep dermal burn with a small central eschar, (e) full thickness with a prominent eschar
Burn depth
The terminology used for burn depth varies internationally. The British Burn Association (BBA) describes burn depth according to the skin anatomy,\(^8\) whereas the American Burn Association (ABA) classifies depth in degrees\(^17\) (table).

Burn site
Burns to certain body regions can be particularly difficult to manage, namely the hands, feet, face, perineum, and genitalia. Facial burns can lead to significant swelling and may be accompanied by ocular or inhalational injuries. Burns to the hands can cause functional impairment, particularly with subsequent scar contractures, and their management often involves regular physiotherapy. Burns to the feet are also prone to swelling and may require a period of bed rest and elevation.\(^18\) Genital burns have potential to restrict micturition and may need catheterisation. Both perineal and genital burns are prone to contamination and require regular dressing changes.

A circumferential burn is present when the entire circumference of a limb (or the trunk, neck, or digits) is burned. The inelastic burned skin has potential to constrict the underlying tissues, particularly if tissue oedema progresses, leading to tissue necrosis. All circumferential burns should be discussed with a burns service urgently.

Clinical photographs of the burns (with the patient’s consent) are the most accurate way of documenting the burn and monitoring healing. They can also be sent to burns services for review if required.

When should I refer?
Consider referral to specialist burns services for patients having large or complex burn wounds, or associated complications (box 2). The nearest burns service is usually the first point of contact for referrals. The burn wound can be covered with cling film during transfer.

Many services now use online referrals\(^19\) whereby clinical details and photographs can be sent directly from a computer or smartphone, or with live video assessment. This can reduce travel requirements for patients, especially in areas far from specialist centres.\(^20\)

What are the first aid measures for burns?

Cool the burn with cool running water for 20 minutes. Cooling the burn is effective up to three hours after the injury.\(^23\) If the patient presents within that time, further cooling in the department will help to prevent progression of the burn. Cooling eases pain, reduces the inflammatory reaction, and prevents progression of the burn.\(^24\) Ice or iced water should not be used as this causes vasoconstriction and can deepen the burn along with increasing the risk of hypothermia.

Remove rings and jewellery near the burn\(^25\) as subsequent swelling risks vascular compromise of the digits.

How do I manage the burn wound?

No specific treatment is usually required for epidermal (first degree) burns. Moisturising cream can be applied. Ask the patient to return if blistering occurs later or the wound is very painful. Antibiotic ointments, hydrogels, petroleum jelly, or soft paraffin can be used for superficial facial burns.

For deeper wounds, provide suitable analgesia before cleaning. Remove wet or burned clothing to access the burn and prevent hypothermia. Remove any debris from the area. Expose and clean one site at a time to reduce heat loss. Gently clean the burn with warm water and dilute aqueous chlorhexidine (0.1% or 0.2%)\(^26\)\(^27\) as this has broad antimicrobial coverage. Soap with warm water or saline is an appropriate alternative if chlorhexidine is not available.

Remove any loose skin and blisters that have already ruptured.\(^28\) The removal of blisters facilitates accurate assessment of the burn size and depth, reduces the potential for infection, and increases the efficacy of topical ointments and antimicrobials. Most blisters will lift with cleaning. Generally, large or tense blisters should be removed in sterile conditions with scissors and forceps. Small (<6 mm), non-tense blisters can be left alone.

What dressings are used for burn wounds?
Dressings are used to protect the wound from further trauma and maintain an optimal environment for healing. Numerous dressings with different properties have been used to treat burn wounds, though the evidence for each is of low quality, as identified in various systematic reviews.\(^29\)\(^30\)
What are the possible acute complications?

Infection
Infection is a leading cause of morbidity and mortality in patients with burns. Infection can deepen the burn wound and, in severe cases, cause systemic sepsis. Infection in the small burn wound presents with increased pain, localised cellulitis, warmth, induration, increased exudate (often malodourous), dressing discoloration, and a change in the appearance of the burn itself. Consult the nearest burns service for management or referral of patients with infected burn wounds. Mild localised infections can be managed with oral antibiotics in an outpatient setting, but more severe infections may require intravenous antibiotics and surgical debridement.

Toxic shock syndrome
Toxic shock syndrome is an uncommon but severe systemic illness with a high mortality if left untreated. It is caused by exotoxins from colonising bacteria (most commonly Staphylococcus aureus) which provoke an overwhelming immune response in patients with impaired immunity. In the context of a burn, children under 4 years old are at greatest risk as they have not yet developed antibodies to the exotoxins, and the burned skin loses its protective barrier against the colonising bacteria. The typical presentation is a young child with sudden clinical deterioration one or two days after a burn injury. Clinical findings may include pyrexia (≥39°C), rash, lethargy, irritability, diarrhoea or vomiting, and lymphopenia. The burn wound itself may be clean and unremarkable. It is important to immediately consult both a paediatrician and a burns service for any unwell or pyrexial child who presents after a burn injury.

How do I monitor the burn wound?

For burns that do not require management at a burns service, follow-up can take place in primary care. Some A&E units have their own follow-up clinics. Arrange an initial review within two or three days to review depth progression, infection, and exudate. All burn wounds develop a paler appearance at day two or three due to tissue fluid and biofilm formation, which may be mistaken for burn wound progression or infection. Arranging first dressings change at this point enables review of the changes.

Subsequent dressing changes can occur every three to seven days. Low adherence or “tulle” dressings may need to be changed every three or four days to prevent wound adherence. Dressings without antimicrobial properties are also changed earlier than antimicrobial dressings. Superficial burns should heal within two weeks. If there are concerns about infection, deepening of the burn, or delayed healing, discuss this with the nearest burns service.

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CASE REVIEW  A calcified mass in the nose

A woman in her 40s presented with a five year history of recurrent left nasal discharge, bleeding, and obstruction. Her symptoms had not improved with use of nasal sprays, including those with steroids. She reported no history of nasal trauma, foreign body insertion, or underlying allergy. She was otherwise healthy.

1. What are the malignant differential diagnoses of unilateral nasal symptoms?
2. What are the non-malignant differential diagnoses of unilateral nasal symptoms?
3. What further investigations are required for unilateral nasal symptoms?

Submitted by Hao Meng Yip, Declan Costello, and Roland Hettige
Patient consent obtained.
Cite this as: BMJ 2022;379:e068735

LEARNING POINTS

- Persistent unilateral nasal obstruction, discharge, and bleeding warrant urgent referral.
- Common causes of unilateral nasal symptoms include unilateral nasal polyps, inverted papilloma, and osteoma.

PATIENT OUTCOME

Flexible nasoendoscopy in clinic followed by subsequent examination under anaesthesia in theatre with rigid nasoendoscopy confirmed an obstructed left nasal airway with a large amount of mucus and a mass. The CT scan showed a heavily calcified mass in the left nasal cavity. After flexible nasoendoscopy, rigid nasoendoscopy (figure) showed a large amount of mucus and a calcified mass. The patient reported complete resolution of symptoms post-surgery.

The patient had no history of foreign body insertion, and the nasal symptoms were therefore likely to be due to a calcified mass rather than an external object. The calcified mass was confirmed by histology, and the patient recovered fully.

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

Facial oedema and destructive lesion of the hard palate

This is a necrotic ulcerated lesion with irregular margins on the hard palate of an Equadorian man in his 50s.

He presented with facial swelling, weight loss, and mouth pain. Computed tomography and nasal endoscopy only showed signs of rhinosinusitis with oedematous changes of the facial region. Similarly, findings from initial microbial cultures and biopsies of specimens from the ulcer, turbinates, and paranasal sinuses were negative or inconclusive. Extranodal natural killer cell T cell lymphoma, nasal type, was finally diagnosed from histopathological examination of further biopsy specimens from the turbinates. This condition is a subtype of Epstein Barr virus related non-Hodgkin’s lymphoma, previously known as lethal midline granuloma, and is rare outside of Asia and South America. It usually appears with extranodal presentation within the upper aerodigestive tract, commonly involving the nasal cavity, nasopharynx, and paranasal sinuses. In patients presenting with facial swelling, an oral examination should always been performed. Early stage localised disease carries a favourable prognosis with combination chemoradiotherapy.

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Patient consent obtained

Cite this as: BMJ 2022;379:e071929

If you would like to write a Minerva picture case, please see our author guidelines at bit.ly/29HCBAL and submit online at bit.ly/29yyGSx

Biases of peer review

Authors’ reputations have a strong influence on peer reviewers’ recommendations, according to the results of an experiment in which 3000 researchers were invited to comment on a paper jointly written by a Nobel laureate and a junior research associate. When the junior researcher was the only name shown on the manuscript, 65% of reviewers recommended rejection. When the more famous moniker was revealed, only 23% of reviewers wanted to reject the paper (Famous moniker was revealed, only 23% of reviewers recommended rejection. When the more famous moniker was revealed, only 23% of reviewers wanted to reject the paper (SSRN doi: 10.2139/ssrn.4190976).

Salt content of food

Surveys of packaged food products sold in the UK show that, between 2015 and 2020, mean salt content fell by a nugatory 4%. The reduction wasn’t statistically significant and might represent no more than random variation over time (PLOS Med doi: 10.1371/journal.pmed.1004114). It looks as if voluntary salt reduction targets for the UK food industry are having little effect.

Stages of grief

Elisabeth Kübler-Ross first proposed the sequence of denial, anger, bargaining, depression, and acceptance to explain how people came to terms with their own impending death. Later she applied the same stages to the process of grieving. An expert in medical evidence, examining the stages through the lens of a personal tragedy, finds them seriously deficient. They hadn’t been derived from systematic observation and they didn’t fit with her own experience either (www.theatlantic.com/science/archive/2022/10/five-stages-complicated-grief-wrong/671710/).

Leisure activities and dementia risk

A systematic review of 38 longitudinal studies with data on more than 2 million individuals confirms that people who keep active are less likely to develop dementia. Participation in leisure activities, including cognitive, physical, and social activities, was associated with a roughly 20% reduction in the incidence of both Alzheimer’s disease and vascular dementia. Does this mean that taking part in leisure activities protects against dementia? Or is it just that the sort of people destined to avoid dementia are also the sort that tend to stay active? (Neurology doi: 10.1212/WNL.00000000000200929).

Type 1 diabetes and recent covid-19 infection

The incidence of type 1 diabetes increased by around 20% in Scottish children aged 0-14 during the pandemic. However, a detailed analysis reckons that SARS-CoV-2 infection is unlikely to be the culprit. First, there are wide variations in the incidence of diabetes in this age group from year to year. Second, linkage of diagnostic data to virology laboratory data revealed no relation between onset of diabetes and a positive test for SARS-CoV-2 infection 30 or more days earlier (Diabetes Care doi: 10.2337/dc22-0385).

Walking for people with knee osteoarthritis

In a longitudinal study of more than 1000 people with osteoarthritis of the knee, those who walked for exercise were less likely to develop new knee pain than those who didn’t. Progression of joint space narrowing was also less common in walkers than in non-walkers. The investigators suggest that walking protects against progression of knee arthritis. Another explanation is that people with arthritis who choose to walk for exercise have less severe disease (Arthritis Rheumatol doi: 10.1002/art.42241).

Cite this as: BMJ 2022;379:d2568

It looks as if voluntary salt reduction targets for the UK food industry are having little effect.