These were tender, firm in consistency and had a smooth surface. Systemic examination revealed no significant lymphadenopathy in the other regions. Abdominal and urogenital examination was also unremarkable.

Biochemical investigations revealed normal inflammatory markers including white cell count of 5.49 cells10^9 /L, C-Reactive protein 0.7 mg/L and ESR2 mm/hour on 2 consecutive samples thereby making the suspicion of an infectious aetiology like tuberculosis less likely. Lactate dehydrogenase was 180 U/L and full blood count was normal (Haemoglobin 150 g/L, Platelet count 265 cells 10^9/L) ruling out the possibility of haematological malignancy. Other biochemical tests including urea and electrolytes, liver enzymes, ferritin, vitamin B12 and folate levels, corrected calcium, and alkaline phosphatase levels were all found to be within normal range. An ultrasound scan (USS) confirmed two inguinal lymph nodes (Figure 1 images a, b) with the largest lymph node measuring 3cm in diameter and described as homogenous with preserved hila in keeping with reactive lymphadenopathy. A follow up USS in 4 weeks revealed a significant reduction in size (6mm) (Figure 1 images c, d) and their appearance was also reported to be normal. Further clinical follow-up in 3 months revealed absence of any ongoing or new symptoms and complete resolution of inguinal lymphadenopathy.

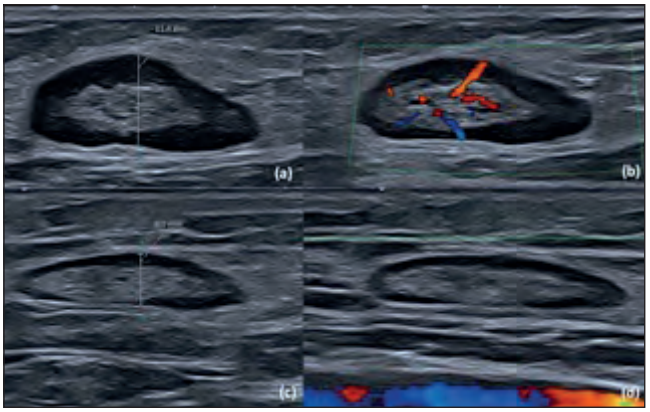

Fig. 1: Grey scale (a) and Colour Doppler (b) ultrasound images of the right groin 10 days after the COVID vaccine demonstrated a mildly enlarged superficial femoral lymph node (vertical group) measuring 11.4 mm in short axis diameter with preserved fatty hilum and minimally increased hilar vascularity, in keeping with a reactive lymphadenitis, corresponding to clinically palpable mildly tender lump.

Follow up grey scale (c) and Colour Doppler (d) ultrasound images of the right groin showed complete regression of the reactive lymphadenitis to normal, appearing right superficial femoral lymph node measuring 6 mm in short axis diameter with negligible vascularity on colour Doppler correlation.

At the time of writing this report non-regional reactive lymphadenopathy had not been reported as a possible transient side-effect to anyvaccine[1, 2, 3]. This is hence the first reported case in literature highlighting this novel side-effect.The authors acknowledge the absence of a definitive investigation that could confirm direct causation between the vaccine and our case's presentation. However, the absence of any other plausible explanation, the timing of development of the symptoms after the vaccine administration, and complete clinical and radiological resolution of inguinal lymphadenopathy with conservative management supports the hypothesis that this was an adverse reaction to the novel vaccine. Furthermore, the initial radiological appearance of a reactive lymphadenopathy also reinforces our suspicion.

This case emphasizes the importance of obtaining recent immunization history in people presenting with unexplained lymphadenopathy, thereby possibly avoiding the need for further CT imaging and invasive lymph node biopsy tests. There has also been a lot of interest in investigating the migratory function of dendritic immune cells as a cause of local lymphadenopathy following inflammation[4, 5]. This case also highlights the need for further research to fully understand the pathophysiology of distant site lymph node activation following vaccine administration.

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ALLERGIC CONTACT DERMATITIS TO A COMMON TOPICAL ACNE TREATMENT – AN UNFAMILIAR MIMIC OF ANGIOEDEMA.

Editor,

A previously healthy, non-atopic 12-year-old girl presented to the Emergency Department with a pruritic, facial skin eruption. Examination revealed localised facial swelling, tenderness and erythema limited to periorbital, malar, and nasal areas (Figure 1). The patient was commenced on intravenous antibiotics and admitted for inpatient observation.

Concern was heightened six hours later, with urgent review demonstrating rapid progression in symptom severity.

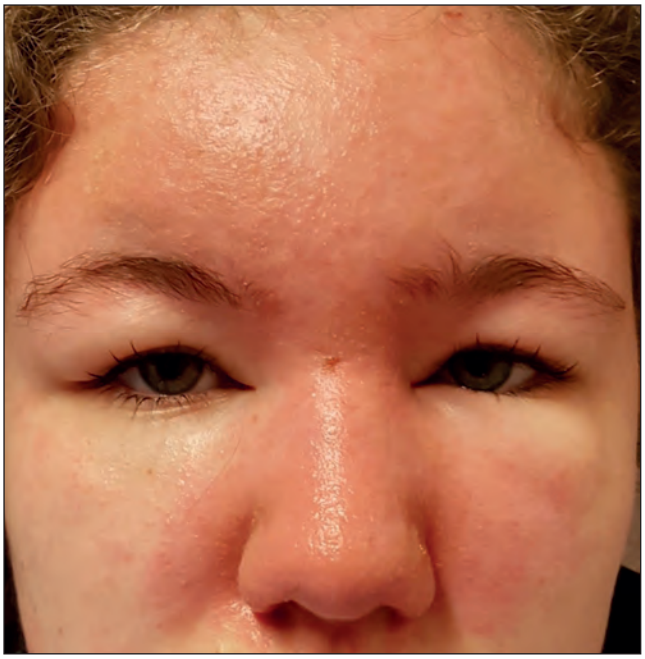

Figure 1. Photograph upon initial presentation of mild/moderate facial erythema, crusting and swelling.

Examination revealed marked periorbital oedema resulting in almost complete palpebral fissure closure, with skin thickening, coalescing papules and honey-coloured crusts (Figure 2). Reassuringly, there were no signs of airway, respiratory, cardiovascular, or gastrointestinal compromise, and normal vital signs made anaphylaxis unlikely. Likewise, without visual disturbance or restriction in eye movement, concerns of periorbital cellulitis were lowered.

Upon revisiting the history, the exacerbation coincided with the continued use of topical Benzoyl Peroxide (BPO) gel which had been prescribed by her general practitioner two weeks earlier as a common first line agent used in mild papulopustular acne.

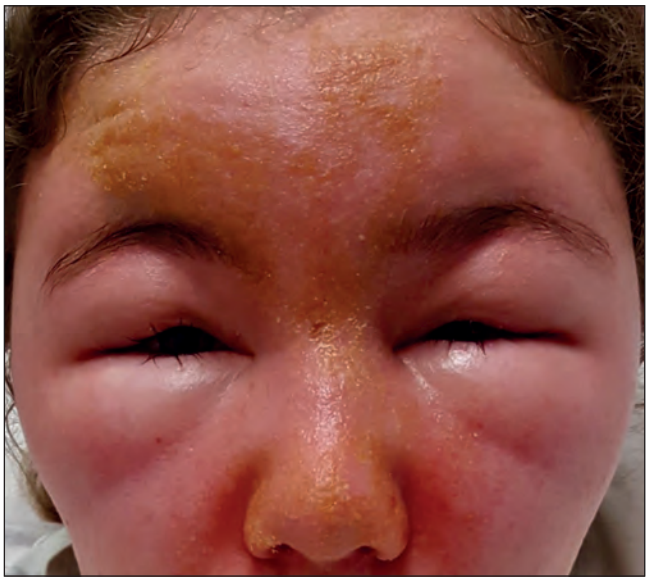

Figure 2. Photograph six hours later of florid/marked facial swelling, erythema and coalescing papules with honey-coloured crusts associated with allergic contact dermatitis.

Treatment with oral corticosteroids and topical corticosteroid/antibiotic therapy was commenced. Marked improvement was seen within twenty-four hours of treatment with complete resolution achieved at two weeks. While a patch test was not performed to confirm sensitization, the clinical presentation and timing of symptoms were deemed pathognomonic for Allergic Contact Dermatitis (ACD), as recognised instantaneously upon consultation by dermatology colleagues. While practice has moved away from patch testing in paediatric populations, avoidance measures were successfully undertaken for products containing topical BPO and alternative topical acne treatments commenced without symptom reoccurrence.

ACD is an inflammatory skin response induced by contact with an allergen, causing a type four hypersensitivity reaction. When it manifests on the face, it is often misdiagnosed as angioedema due to the marked periorbital swelling[1]. It can be differentiated from angioedema by demonstration of associated superficial erythema, dermatitis, pruritus, tenderness and, most importantly, a history of allergen contact. Later, as the swelling resolves, desquamation is a distinguishing feature of ACD, in contrast to patients with angioedema.

BPO is a common first line topical treatment for acne vulgaris in children and young people[2]. While common side effects of skin irritation are recognised and reflect BPO's irritant properties, little is known of its allergenicity[3]. ACD to BPO as described, is felt to be underreported due to its similarity in clinical presentation to irritant contact dermatitis[4]. Symptom onset and exposure history can be helpful in establishing the diagnosis which is ultimately verified upon patch testing[5].

While there are few reported cases of contact sensitisation to BPO, risk factors for ACD have been identified. These include a compromised epidermal barrier, allergen contact at multiple sites and prolonged, frequent exposure. Multiple risk factors result in a more severe reaction, as in our case.

This case highlights ACD as a cause of pseudoangioedema - knowledge of which will help paediatricians and General Practioners target the correct underlying pathophysiology when assessing children and adolescents using this agent for treatment of acne vulgaris. With improved awareness of its allergenicity, adolescents can be safely counselled regarding its application and side effect profile.

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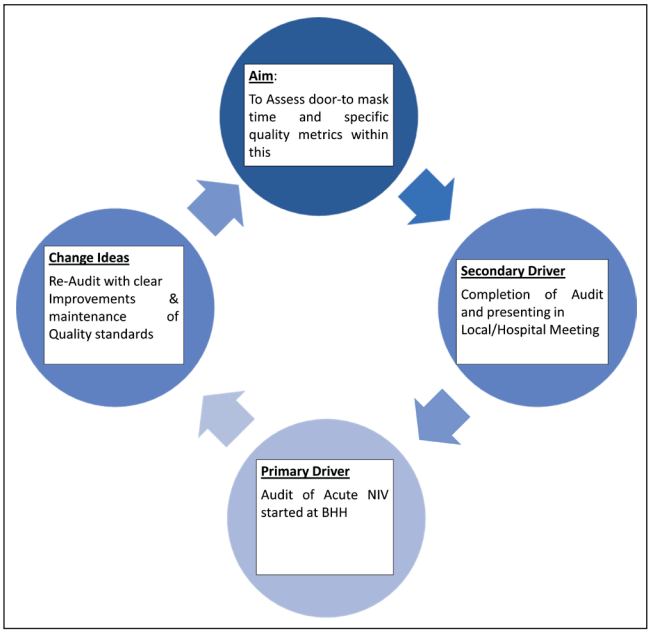
RESPONSE TIMES FOR ACUTE NON-INVASIVE VENTILATION SET-UPS

Dear Editor,

NIV is a lifesaving treatment in chronic obstructive pulmonary disease (COPD). Prompt NIV treatment in hypercapnic COPD exacerbations allows for improved physiological outcomes, reduced intubation rates and shortened hospital stay in (1, 2). Therefore, consensus expert opinion is that prompt application of acute NIV substantially reduces the risk of death and should be started without delay in appropriately selected patients with acute hypercapnic respiratory failure (AHRF).The 'door-to-mask' time (hospital arrival to NIV commencement: target ≤120 minutes) has been widely used to measure the quality of acute NIV services as per the 2018



BTS Quality Standards (3, 4). In setting a 120 min target from arrival to mask application, this statement intends to establish that recognition and treatment of AHRF are time-critical events for patients admitted acutely. We previously reported a median 'door-to-mask' time at the emergency department at Heartlands Hospital in 2014 of 115 min, meeting the 2018 BTS quality standard of ≤120 minutes(5). As part of an important quality improvement initiative, we have subsequently developed internal guidelines and monthly NIV training sessions to try to improve acute NIV service quality.We aimed to look at response times within the door-to-mask time using standards derived from the British Thoracic Society/Intensive Care Society Guideline for the ventilatory management of acute hypercapnic respiratory failure and 2019 BTS NIV Audit Report to generate insights for future quality improvement (6) (Figure 1).

Data on metrics were recorded for all acute NIV recipients in the Emergency Department (ED) at Heart of England Foundation NHS Trust and stored in our acute NIV quality database for subsequent extraction and calculation of median (interquartile ranges (IQR)). Between 27/03/19 and 26/09/19, 89 patients received NIV with 46 starting on acute NIV in ED, 38 developed acidosis later and 5 had incomplete data(7). The total door to mask time in ED was 163 (197) mins. Within this, the door-to-first-ABG time was 29 (55) minutes, the first-ABG-to-Decision making/call time was 72 (77)minutes and decision making-to-mask time was 40 (20) minutes. We saw an increase in door-to-mask time from 2014 to 2019, likely reflecting the national increase in ED wait times. However, the decision-making to mask time was 40 min which has decreased from 55 since 2014, reflecting the improved response times of physiotherapists potentially due to feedback on performance and monthly NIV training sessions for allied health professionals, as well as internal guideline development (8). This audit is part of a continual quality improvement project and will serve as a foundation to monitor specific response times and quality with iterative interventions. With the ongoing COVID-19 pandemic and stringent infection control measures around aerosol generating procedures, it is now essential to determine the impact this has had on NIV service quality and excess deaths with a view for continual quality improvement.

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