Live Leech as a Tracheal Foreign Body

A previously healthy 4-year-old girl presented with 10 days wheezing, difficulty breathing, and hemoptysis, with a 20 days history of a live leech coming out of the nasal cavity, but without cough. There was no abnormality noted physical examination. A chest computed tomography (CT) scan showed the existence of relatively high protrusions above the posterior tracheal wall at the level of sixth and seventh cervical vertebra (**Fig. 1 a,b**). She underwent tracheal foreign body removal surgery under general anesthesia with high-frequency jet ventilation. The foreign body was found sub-glottic on the posterior tracheal wall and confirmed to be a live leech (**Fig. 1c**) and no respiratory irritation related syndrome. The patient had an unremarkable postoperative course, and was discharged home on the second day after surgery.

Although, tracheal foreign bodies frequently occurs in children, an alive leech was surprising.

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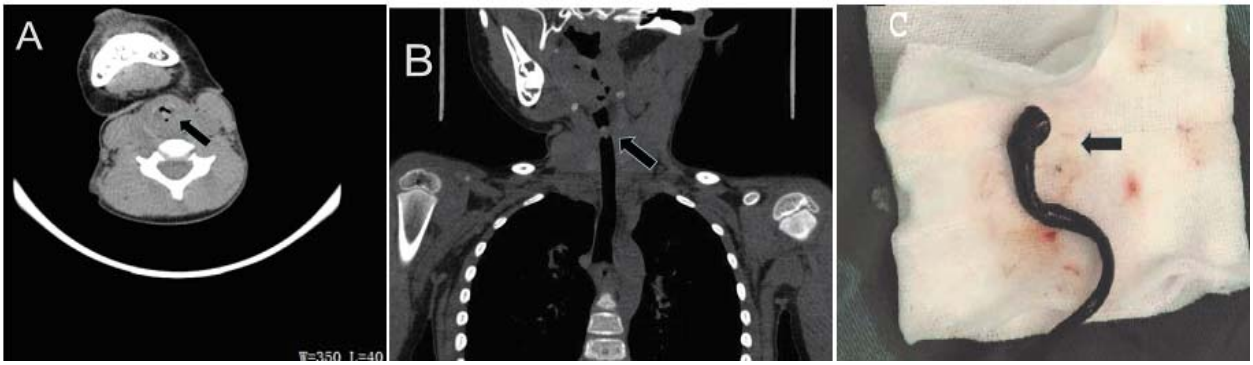

Fig. 1 *a,b*) computed tomography showing the airway blocked by a foreign body (arrow); *c*) the alive leech removed from the trachea.

Chronic Urticaria in a Child With Nephrotic Syndrome: A Double Whammy!

Co-occurrence of nephrotic syndrome and chronic urticaria in a child is quite rare. Herein, we describe the concomitant occurrence of these two entities and possible role of dietary pseudoallergens in the causation.

An 18-months-old boy presented to pediatric inpatient department with five days history of periorbital and pedal edema, decreased urine output, fever, and recurrent urticarial rash. Based on these clinical presentations, nephrotic syndrome was suspected and specific laboratory testing was performed to establish diagnosis. Diagnostic workup by the treating pediatrician confirmed the diagnosis of nephrotic syndrome. Corticosteroid therapy (prednisolone) was started and tapered over period of 12 weeks. However, urticaria reappeared as the steroids were tapered and stopped. It did not resolved even with anti-histaminics and steroid therapy, and followed a relapsing remitting course. On dermatological review, urticarial rash had been present since 8 months of age, ever since the introduction of formula feed in the child's diet. Our differential diagnosis included hypocomplementemic urticarial vasculitis syndrome (HUVS) and pseudoallergen - induced chronic urticaria. Suggested investigations could not be carried out due to resource constraints. Complete blood count, erythrocyte sedimentation rate, C reactive protein, anti streptolysin O titre, antinuclear antibodies, autologous serum skin test, absolute eosinophil count, thyroid function test, IgE levels, CH50, C1q, C2, C3, C4 levels, stool microscopy and culture, urine analysis, dental and ENT examination were done. All investi-gations were within normal limits. Skin biopsy was performed to rule out vasculitis. Allergen test was not done to due to feasibility issues. Absence of any other symptoms, normal complement levels and painless itchy fleeting wheals with duration of 1 to 24 hours ruled out HUVS. Since, there was a temporal association between initiation of baby formula feed and onset of urticaria, we looked at its ingredients in detail, which were found to be partially hydrolyzed milk protein (casein and whey), azo dyes as coloring agent, and sodium benzoate as preservatives. All these are known pseudoallergens. One week analysis of child's diet revealed that he was not having any finished, packaged or convenience products except formula feed. After pediatric consultation, we removed this formula feed from his diet and put him on a low pseudoallergen diet for 3 weeks. This was followed by a marked improvement in the chronic urticaria, and no recurrence of the lesions.

Pseudoallergens in diet are one of the most common causes of chronic urticaria in adults [1]. However, there is still scarcity of literature on pseudoallergen-induced urticaria in children [2].

Pseudoallergies can only be diagnosed via a strict exclusion diet.

Role of allergens in pathogenesis of nephrotic syndrome have already been elucidated in the literature. Fanconi, et al. [3] suggested that allergens could be the triggering factor in the development of proteinuria. There are several case reports exemplifying the role of food allergens in minimal change disease. Laurent, et al. [4] studied the effect of allergen-free diets in steroid-dependent or steroid-resistant idiopathic nephrotic syndrome. Although there is dearth of data on role of pseudoallergens in diet as a triggering factor in nephrotic syndrome, our case suggests the possibility. Further research is needed to confirm this correlation.

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Subcutaneous Calcification at Honeybee Sting Site

Children very frequently become victims of honeybee sting because of their limited self-defence and curiosity. Clinical manifestations are usually acute, and chronic complications are extremely rare [1]. We report late onset, local subcutaneous calcification following an apparently uneventful honeybee sting.

An 8-year-old girl presented with a subcutaneous mass over the left suprascapular region for 7 months. There was a history of sting by honeybee at the same site 10 months back. The child had mild self-limiting pain following the incident. A slowly progressing mass was noticed by the parents three months after the sting. On examination, the mass was 25mm x7 mm in size, irregular, firm, mobile and nontender (**Fig. 1a**). The overlying skin was free, with a small visible hypopigmented swelling. Chest *X*-ray revealed subcutaneous calcification. Ultrasonography over the swelling revealed a subcutaneous, hyperechoic deposit with a linear morphology that produced an acoustic shadow which was suggestive of calcific lesion. The lesion was measuring 18mm x 8mm, without any evidence of vascularity (**Fig. 1b**). Serum calcium levels were normal. A diagnosis of subcutaneous calcification secondary to honey bee sting was made. Parents were counseled regarding the benign nature of the lesion.

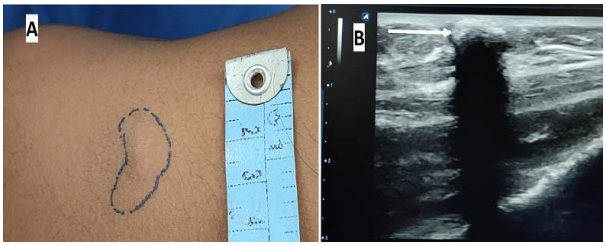

Fig. 1 *a*) Crescent shaped left suprascapular swelling measuring 2.5×0.7 cm.; *b*) High resolution ultrasonography image showing subcutaneous, hyperechoic deposit with a linear morphology (white arrow) and acoustic shadow suggestive of calcific lesion.

In honeybee sting, the stinger is detached from the body following sting which leads to death of the insect [1]. The clinical features following honeybee sting may comprise of allergic reactions, organ dysfunction and rarely, late manifestations like formation of granuloma and subcutaneous tissue calcifications [2,3].

Unlike honeybee sting, subcutaneous calcifications have been reported following sting by other insects belonging to Hymenoptera [4]. Both dystrophic and metastatic calci-fications can occur due to toxic reactions by the venom, direct inoculation of bacteria and secondary to immune reactions. Hyperphosphatemia, raised levels of TNF-α and corticosteroid use have been linked to the metastatic calcification following the sting [4].

Long term follow up is necessary in these cases in view of the possibility of granuloma formation and calcification. Clinicians should be aware of this rare and late complication in order to avoid misdiagnosis and unnecessary treatment in affected children.

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