Medical Memoranda

Spontaneous Elimination of Inhaled Inflorescence Presenting as Dorsal Tumour

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The case described is considered to be worthy of note because of its unusual aetiology, rarity, and mode of presentation.

CASE REPORT

A twin aged 10 months was referred on 2 March 1965 because of the presence of a painless, firm swelling, situated in the dorsal region, 2 in. (5.1 cm.) to the left of the midline overlying the eighth and ninth ribs. It had been noticed three days previously when the mother gave him his daily bath. She observed that it caused him no pain or discomfort; he had been quite well, and there had been no deviation from his normal behaviour. There was no history of previous illness or recent febrile disorder.

On examination the patient was a lively, healthy infant with normal temperature, pulse, and respiration rates. There was a firm, diffuse, painless swelling 2 in. (5.1 cm.) to the left of the ninth dorsal spinous process overlying the costal space between the eighth and ninth ribs, adherent to and infiltrating the musculature overlying the chest wall, but not adherent to the ribs. The overlying skin showed no evidence of previous puncture or scarring. Palpation produced no discomfort, but a slight red flush could be discerned subsequently.

Radiography revealed no abnormality in the dorsal spine, ribs, or lung fields.

Exploration of the swelling was advised and undertaken six days later. A diffuse, firm, fibrotic mass was dissected free of the posterior aspect of the chest wall. It was found to end deeply with a narrow neck which passed to end beneath the eighth rib between the bare, roughened, deep surface of the rib and its periosteum and parietal pleura. The neck of the mass was opened to reveal a sinus containing a straw or bristle-like foreign body bathed in a small quantity of thin pus. The bristle had numerous stiff side spikelets pointing towards the deeper aspect of the sinus. The fibrous mass and the sinus were excised and the wound closed. Culture of the pus produced a growth of *Staphylococcus aureus* and *Escherichia coli*, and after sensitivity tests had been carried out a course of oxytetracycline (Terramycin) was given.

Convalescence was uneventful. Histological examination of the swelling (Dr. R. L. Turner) showed "the presence in the subcutaneous tissues of an extensive non-specific granuloma characterized by proliferating fibroblasts and capillaries, heavily infiltrated with acute and chronic inflammatory cells. Foreign-body-type giant cells are present. The reaction is arranged around a central necrotic fistulous tract."

FIG. 1.—Foreign body showing side spikelets.

The foreign body (Fig. 1) was a firm fibrous stalk, 11 cm. in length, with numerous stiff spikelets set at an acute angle to the stem. The botanical plant from which the bristle was derived is known as *Sorghum vulgare*, which is used for the brushes known as Italian whisks.

COMMENT

The spontaneous extrusion of inhaled bristles or grasses with side spikelets (inflorescences) through the lung parenchyma, pleura, and chest wall is a rare phenomenon. Chevalier Jackson (1952) could trace only 35 reported cases since 1794. The inflorescences which have closely set side spikes that soften with moisture usually produce obstructive and infective respiratory disorders with attendant symptoms (Woolley, 1955; Godfrey, 1957; Choremis *et al.*, 1964). The type with a firm stem and side spikes set at an acute angle to the stem which do not soften with moisture rarely cause respiratory symptoms when inhaled by virtue of the fact that the side spikes do not obstruct the airway and so rarely produce atelectasis. With respiratory movements the side spikes determine unidirectional progress of the foreign body deeper and deeper into the lung parenchyma until it penetrates through the pleura and passes through the pleural cavity and chest wall to end lying subcutaneously.

The foreign body and the reaction to it found in the case described was of this type, and it was inferred that it had reached the subcutaneous position after being inhaled. While the parents could not recall any disorder or any possible inhalation of a foreign body, they easily recognized the bristle as one from a flat furniture-dusting brush with which the child frequently played. Production of the brush allowed its bristles to be identified with the foreign body (Fig. 2).

FIG. 2.—Furniture-dusting brush. The foreign body and the bristles of the brush were identical.

I am indebted to Professor E. Lees, professor of biological studies, Bradford Institute of Advanced Technology, for his help in identifying the botanical nature of the foreign body.

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