Physical Signs

Subconjunctival emphysema

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Subconjunctival emphysema is a condition that must theoretically exist in severe subcutaneous emphysema due to the laxity of the conjunctival tissues. However, this is generally obscured by associated periorbital emphysema and is hidden from view. We present documented evidence of subconjunctival emphysema in the absence of periorbital emphysema.

A 53 year old man was admitted with a large right sided pneumothorax. He had suffered with chest disease since childhood and in 1959 a bronchogram showed predominantly right sided bronchiectasis. In 1967 he suffered a right sided pneumothorax requiring drainage with an intercostal drain. In 1968, 1979, and 1981 he had further right sided pneumothoraces each of which required surgical drainage, each episode resulted in the full expansion of the right lung.

It was decided that a more definitive procedure be performed and he was referred for a right pleurectomy. Post-operatively he had an apical and basal chest drain. On the removal of the drains 6 d after operation he was noticed to have a right basal pneumothorax and it was decided to allow this to be

absorbed. Two days later he complained of an abnormal swelling over his right globe and on examination this revealed free air beneath the conjunctival tissues of the eye. On further examination there was minimal subcutaneous emphysema over the right side of the chest and right cheek, in the absence of periorbital emphysema. He was treated with hypromellose 0.3% eye drops five times daily and the condition resolved over the next 5 days.

Comment

Subcutaneous emphysema severe enough to affect the face following extravasation of air from the thorax usually results in a 'Michelin Man' appearance with severe periorbital emphysema such that the patient is unable to open his eyes. Consequently subconjunctival emphysema is hidden from view. We present here what we feel to be the first photographs of subconjunctival emphysema in the absence of periorbital emphysema.

Figure 1 Right eye; frontal view.

Figure 2 Right eye; lateral view.