



The Management of Pulmonary Symptoms in Yellow Nail Syndrome: A comparison between two sisters . Elshaab Hospital, Khartoum, Sudan.

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INTRODUCTION

A 31-year-old female presented to the Outpatient Clinic with productive cough, dyspnoea and chest pain for a month. She had been plagued with this cough, which is mainly nocturnal, for the past 7 years. She claimed to have had no fever throughout the course of her illness. She had suffered from similar symptoms almost a year ago and had received treatment with some improvement. A systemic inquiry showed she had been complaining of chronic sinusitis and had been treated by antral washes twice. For the past 15 years, she had suffered from allergies and maculopapular rashes that appeared and subsided. She claimed to have no symptoms of Lymphodema or suggestion of thyroid problems. She experienced bouts of recurrent constipation with no other gastrointestinal symptoms. She complained of bilateral knee arthralgia. She was found to be a non- diabetic, hypertensive or a smoker.

Examination revealed an unwell, slightly pale, and dyspneic woman. It was noted that this patient had yellowish-green dystrophic and thickened nails. Examination of the chest revealed the right side to be moving less. Her trachea was deviated to the left and stony dullness was elicited in the right lung zone. Auscultation exhibited diminished air entry in the right lung. Other systems were unremarkable.

She was provisionally diagnosed with pleural effusion and a chest tube was inserted yielding pus.

Routine blood investigations revealed a haemoglobin of 11.4 g/dl and a white cell count of 6,900 c/mm³ with a differential count of 70%

neutrophils. The patient's erythrocyte sedimentation rate was found to be 85mm/hr. Biochemical tests including liver function tests and liver enzymes were normal. However, the patient had hypoproteinemia (1.4 g/dl) and urine analysis showed a relatively high number of pus cells. In addition, the patient had a markedly elevated titer of rheumatoid factor (Rh > 8IU/ml). Mantoux test was found to be 0 mm and Sputum for AAFB was negative on 3 consecutive specimens.

Pleural fluid was obtained and sent for microbiology (to reach an etiological diagnosis and subjected to Gram stain :) gram-positive diplococci were present. ZN stain for tuberculosis was negative. Cytological examination of the pleural fluid revealed abundant neutrophils, with no malignant cells; findings consistent with acute suppurative inflammation.

Chest CT scan findings confirmed the presence of pleural effusion in the right side of the chest.1

The diagnosis of right-sided Empyema was confirmed and the patient underwent right poster lateral thoracotomy with decortication.

Following surgical management of our patient, various concomitant manifestations led us to consider Yellow Nail Syndrome as the common denominator. Further confirmatory investigations were done. It was incidentally discovered that the patient had been also complaining of a breast lump for one and a half years and had been reassured countless times. Ultrasound and Mammography of her left breast revealed a tumor in the upper outer quadrant of her breast. Fine needle aspiration for cytology was done and the histopathology yielded Breast Adenocarcinoma





and she underwent lumpectomy and further management for carcinoma breast.

On detailed questioning of the patient on the presence of any family history of a similar condition, it was discovered that a younger sibling was afflicted with a similar illness. Her sister had been presenting for many years to casualties with recurrent chest infection and yellow nails. Oddly, this case went unnoticed and no correlation made between her chest symptoms and the affection of her nails. Her sister however received rigorous management of her pulmonary symptoms and improved dramatically with resolution of her yellow nails shortly after.

DISCUSSION



Figure: Improvement of the patient nails following her chest symptoms control and lumpectomy for carcinoma

Yellow nail syndrome (YNS) is a rare disorder characterized by a triad of yellow discoloration and destructive changes of nails, lymph edema and a variety of pathologies in the respiratory system (2). These three alterations are simultaneously present in only 27 percent of cases. Yellow nails were present in 89 percent of the patients, and 36 percent had pleural effusion. The YNS is more common among females (1:1.6) and occurs mainly in middle age, although it has been described in patients ranging from infancy to the eighth decade of life (3). Studies claim that there have been only a few published reports where a positive family history (FH) has been documented in cases of YNS (2), (3), (4), (5), (6), (7).

Most patients have lung disease of the lower lobe, which might be secondary to obstruction and/or infections. Patients often, suffer with recurrent and chronic bronchitis, pneumonias,

bronchiectasis, and pericardial effusion. Other reported manifestations include conductive hearing loss secondary to chronic middle ear effusions, conjunctival discoloration and periorbital edema (8). YNS has been associated with autoimmune diseases such as thyroiditis and rheumatoid arthritis; the latter being seen in our patient. YNS has been related to malignancies, including bronchial carcinoma, breast cancer, non-Hodgkin's lymphoma, and endometrial carcinoma. In several reported cases, the nail deformity resolved after successful treatment of the neoplasm (9).

Our patient has 4 siblings, with her previously mentioned sister being the only one to be afflicted with the mentioned manifestations.

The pattern of inheritance is said to be variable and sporadic coinciding with our patient's findings (8).

Since spontaneous recovery may occur the majority of clinical cases of yellow nail syndrome are likely to be missed in remote areas or even be missed if they present with other systemic complaints as seen in our patient's sister.

Management is difficult. Recognizing the syndrome early is important (8). An increased awareness of these conditions may help with the early diagnosis and therapy of the associated disorders. Our patient had been presenting for 7 years with her symptoms. Yet, despite the manifestations she exhibited, the syndrome was overlooked and her pulmonary and other complaints overlooked and not adequately managed.

Systemic treatment on early diagnosis is usually directed toward controlling airway infections (5). Our patient's sibling despite being missed as a case of yellow nail syndrome received adequate chest symptom management that resulted in resolution of the yellow nails and recovery from her pulmonary infection and halted progression of the other manifestations of the syndrome.

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