Yellow nail syndrome in association with renal cell carcinoma in an elderly patient

NISHITHA VALIYAPARAMBATH, DAMIEN REID

Care of the Elderly, Hairmyres Hospital, Glasgow, UK

Address correspondence to: N. Valiyaparambath. Tel: +44 (0)1355 585000. Email: nishitha2@yahoo.com

Abstract

A case of yellow nail syndrome in an 88-year-old man in association with renal cell carcinoma was reported.

Keywords: yellow nail syndrome, renal cell carcinoma, elderly

Introduction

Yellow nail syndrome (YNS) is a rare clinical triad characterised by peripheral lymphoedema, slow growing dystrophic yellow nails and pleural effusion. This condition can be present in childhood or in adulthood. It is traditionally thought of as an autosomal dominant inherited condition [1, 2] but it can also be seen de novo in association with other conditions including numerous cancers and autoimmune disorders. We believe that this is the first reported case of YNS presenting in association with renal cancer.

Case report

An 88-year-old nursing home resident presented with recurrent lower respiratory tract infections. His past medical history included non-Huntington’s chorea and Waldenstrom’s macroglobulinaemia.

There was no family history of YNS.

On examination, he was noted to have yellow dystrophic nails affecting all his fingers and toes which had developed over the previous year. He had bilateral peripheral lymphoedema and bilateral pleural effusions in addition to left-sided consolidation. Systemic examination was otherwise normal.

Blood investigations showed that he had hypochromic microcytic anaemia (Hb 9.6) secondary to iron deficiency. Renal function tests and liver function tests were normal.

Following on from an abnormal chest X-ray, a CT scan showed unilateral pneumatic changes and bilateral pleural effusions. As an incidental finding, he was noted to have an irregular mass lesion 3.5 cm × 3 cm in the upper pole of right kidney, in keeping with renal cell carcinoma. There was no history or clinical finding to suggest an additional malignancy.

The renal cell carcinoma was managed conservatively in view of his generalised frailty, cognitive impairment and lack of symptoms.

Discussion

The clinical triad of YNS consists of slow growing dystrophic yellow nails involving both hands and feet, peripheral lymphoedema and pleural effusions. Clinical diagnosis can be made even if only two of the signs are present [3].

These clinical features can present together or in cumulative stages as reported in a case where a patient developed lymphoedema in childhood, chronic nail changes at 78 and pleural effusion when she was 90 [4].

Other involvement of respiratory tract may include rhinosinusitis [5], bronchiectasis and lower respiratory tract infections [6]. Our patient’s family had noticed his yellow nails for a year prior to this hospital admission. He had all the three features of YNS.

There are numerous reports in the medical literature of YNS presenting in association with underlying malignancies such as carcinoma of the breast [7], larynx [8], gall bladder [9], non-Hodgkins disease [10], mycosis fungoides [11], autoimmune disorders and chronic infections. It has also been reported in immune deficiency states, in association with drug therapy (penicillamine) [12] and renal conditions including one case of minimal change nephrotic syndrome [13] and a case of mesangio proliferative nephrotic syndrome [14] and xantho granulomatous pyelonephritis [15]. There are no reported cases in association with either
non-Huntington’s chorea or Waldenström’s macroglobulinemia which are both long-standing conditions in this patient’s case.

The underlying pathogenesis behind YNS is thought to be mainly due to functional lymphatic impairment than due to structural changes based on studies using quantitative lymphoscintigraphy [16, 17].

Treatment with vitamin E has been reported to have helped in slow improvement of yellow nails [13, 18].

The pleural effusions associated with YNS are chronic. The effusions may not require treatment, but if large enough to cause symptoms pleurodesis or pleuroperitoneal shunt may be necessary.

Chemical pleurodesis with tetracycline and quinacrine has been proved to be successful [19, 20].

Long-term octreotide has been used successfully in the treatment of lymphoedema and pleural effusion in a case of YNS, but the optimum duration of treatment requires further study [21].

Key points

- YNS can be an inherited or an acquired disorder in association with other conditions. Only a few cases have been reported in the elderly.
- This case of YNS is the first reported in the literature in association with renal cancer.
- The diagnosis of YNS should raise suspicion for malignancy and other associated diseases.

Conflicts of interest

None declared.

References