Paraneoplastic dermatomyositis associated with vocal cord carcinoma

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DESCRIPTION
A man in his 60s with a history of heavy smoking experienced unintentional weight loss and concomitantly developed dysphonia. On observation, he presented with left-side vocal fold leukoplakia, with a biopsy that was negative for dysplasia. Eighteen months later, he developed erythematous cutaneous lesions, alternating with hypopigmented hyperkeratotic areas in the photoexposed skin (figure 1). He also noticed symmetric shoulder girdle weakness, muscle atrophy, arthralgia and Raynaud’s phenomenon. Blood analysis revealed positive antinuclear antibodies 1:1280 with a speckled pattern, anti-SSA (anti-Sjögren’s Syndrome A) and anti-SSB (anti-Sjögren’s Syndrome B) positive autoantibodies, and an elevation of erythrocyte sedimentation rate as well as high levels of aldolase. Skin biopsy showed interface dermatitis suggesting dermatomyositis. A new sample of the vocal cord confirmed invasive squamous cell carcinoma, and the patient was subjected to total laryngectomy with cervical lymph node removal.

Paraneoplastic dermatoses are a group of diverse cutaneous disorders that often occur in association with internal-organ neoplasia. Prompt recognition of these cutaneous manifestations is key since many develop before the malignancy is diagnosed. Dermatomyositis is an idiopathic inflammatory myopathy characterised by proximal muscle weakness, various cutaneous manifestations and molecular evidence of muscle inflammation. Inflammatory arthritis, Raynaud’s phenomenon and the presence of autoantibodies are also common, as was the case with our patient. Several studies have shown that the risk of cancer is greater in patients with dermatomyositis than in those with polymyositis, and the diagnosis of malignancy peaks within the first year after the diagnosis of the myopathy. The exact mechanism of the association between malignancy and inflammatory myopathy, namely dermatomyositis, remains poorly understood. Some studies suggest that this link might be explained by the observation of the expression of common autoantigens between neoplastic cells and damaged muscle tissue in patients with dermatomyositis.

Several types of cancer have been associated with inflammatory myopathy, namely ovarian, cervical, lung, breast, pancreatic, colorectal, gastric, nasopharyngeal carcinoma and non-Hodgkin’s lymphoma. Also, common cancers such as hepatocellular carcinoma have been reported in 13 cases to date. More rarely, laryngeal neoplasia has been described as presenting as polymyositis and dermatomyositis. The presence of malignancy does not appear to affect the severity of distribution or duration of the weakness, but cancer-associated myositis responds more poorly to treatment compared with myositis in the absence of malignancy.

To our knowledge, this is the first case of dermatomyositis associated with vocal fold carcinoma. This case illustrates the importance of an early diagnosis of paraneoplastic dermatoses, accelerating the diagnosis of potentially life-threatening neoplasia.

Learning points
- All patients newly diagnosed with polymyositis or dermatomyositis should be evaluated for the possibility of an underlying malignancy.
- The presence of malignancy does not appear to affect the severity of distribution or the duration of weakness, but cancer-associated myositis responds more poorly to treatment compared with myositis in the absence of malignancy.
- An early diagnosis of paraneoplastic dermatoses is key to anticipate the diagnosis of potentially life-threatening neoplasia.

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Images in...

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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