similar and could only be differentiated by the characteristics of the colonies obtained by culture.

(3) The thoracic and abdominal location is related to the rural day-to-day routine of carrying plants or wood without adequate protection; consequently the skin suffers numerous traumas that represent multiple bacterial inocula [1, 3, 4, 6].

(4) The difficulty in treating our case was related to the resistance of A. madurae to conventional treatment regimens, to which N. brasiliensis is sensitive. The response to treatment with two cycles of amikacin and trimethoprim sulfamethoxazole for one year was not effective in this case, therefore salvage therapy with amoxicillin/clavulanate was attempted and the expected response was observed [9]. In an earlier case, we reported our experience with this scheme as a rescue therapy when conventional therapy failed [10]. We recommend the use of the combined regimen amoxicillin/clavulanate with streptomycin in similar cases. This therapeutic combination presented favourable results in our patient, achieving clinical and mycological cure.

(5) The initial anaemia was probably related to chronic infection and returned to normal a few months after the treatment.

To our knowledge, this is the first reported case of these two aetiological agents producing actinomycetoma and presenting different clinical and biological behaviours, with different response to treatment.


Eosinophilic peripheral arteritis: peripheral arterial occlusion with eosinophilia

A 55-year-old Japanese man with a 35-year history of smoking 20 to 40 cigarettes per day was referred to our department in 2015. His past medical history was unremarkable. Four months before his initial evaluation, he noticed coldness, pain, and numbness of his right middle finger and a nodule along the right temporal artery with no other symptoms. Physical examination revealed pale and cyanotic discoloration of his fingers (figure 1A) and a skin ulcer on the right third fingertip (figure 1B). In addition, a non-tender, thumb-sized, cord-like subcutaneous nodule was palpable along the right superficial temporal artery (figure 1C). Laboratory tests revealed an increase in peripheral white blood cell count (10,200/µL; normal: 4,000-9,600/µL), eosinophilia (2,958/µL; normal: 0-10 mm/h). Other blood chemistry tests were normal. Immunological screening tests, including antinuclear antibody, rheumatoid factor, anti-phospholipid antibody, anti-prothrombin antibody, serum complement levels, myeloperoxidase-anti-neutrophil cytoplasmic antibody (MPO-ANCA), proteinase 3-ANCA, cryoglobulins, and immunoglobulins, including IgE, were all negative or normal. Blood coagulation factors, including protein C and protein S, were normal. Angiography exhibited occlusion of distal arteries of upper and lower extremities with numerous collateral vessels. Thermography revealed a low temperature in all fingers and toes (figure 1D). Histological examination of the nodule in the temporal artery revealed complete obliteration of the vessel lumens (figure 1E) and infiltration of inflammatory cells composed of mainly eosinophils and a small number of lymphoid cells into the vessel walls, whereas no multinucleated giant cell was observed (figure 1F). Elastica van Gieson staining revealed disruption of internal elastic lamina (figure 1G). After extensive examinations, we excluded the underlying diseases classically associated with eosinophilia, such as parasitic, allergic, and neoplastic diseases. Eosinophilic granulomatosis with polyangitis was also excluded based on the absence of a past history of allergic diseases, granulomatous infiltration, and ANCA. We diagnosed the patient with Burger’s disease-like arterial occlusion (AO) and juvenile temporal arteritis with eosinophilia (JTAE). Alternatively, this case can be diagnosed as idiopathic hypereosinophilic syndrome (HES) complicated with Burger’s disease-like AO and JTAE [1]. We initiated treatment with 30 mg/day oral prednisolone.


After one week of corticosteroid therapy, ischaemia of the extremities significantly improved along with reduced eosinophil counts (figure 1H). Thermographic examination revealed significantly improved digital coldness (figure 1I). Given that the symptoms significantly improved, prednisolone was tapered to 2.5 mg/day. No recurrence has been noted during a nine-month follow-up period.

Temporal arteritis is characterized by headache and myalgia in elderly women and often results in a loss of vision, as well as by panarteritis with inflammatory mononuclear cells and frequent giant cells within vessel walls, histologically. JTAE is characterized by temporal arteritis in the young adult male with asymptomatic subcutaneous nodules [2]. Histologically, it is characterized by non-granulomatous inflammation with eosinophils. The complication of JTAE and Burger’s disease-like arterial occlusion (AO) in the extremities is rare. To the best of our knowledge, there have been 13 reported cases of AO in the peripheral arteries of extremities with hypereosinophilia [3, 4], seven cases of AO in temporal arteries with hypereosinophilia [2, 5-8], and four cases of both AO in the peripheral arteries in extremities and temporal arteries with hypereosinophilia, including our case (table S1) [5, 9, 10]. In cases of AO in the peripheral arteries in extremities with hypereosinophilia, eosinophilia was improved by corticosteroid therapy in 66.6% (6/9) of the cases. It is considered that all cases of AO in temporal arteries with hypereosinophilia can be diagnosed as JTAE. All cases of both AO in the peripheral arteries in extremities and temporal arteries with hypereosinophilia were treated with systemic corticosteroid administration, resulting in improvement of the ischaemia of the extremities and hypereosinophilia.

These reported cases exhibited common characteristics: hypereosinophilia and peripheral AO by non-granulomatous arteritis (figure 1J). Therefore, we propose the new nomenclature “eosinophilic peripheral arteritis (EPA)” to describe this distinct entity. JTAE might be a subtype of EPA. A histopathological feature is eosinophilic arteritis in the small- and medium-sized peripheral artery in extremities and the temporal area. Based on a review of previous reports, we believe that EPA may well respond to systemic corticosteroid treatment. Awareness of EPA and further accumulation of similar cases are required to address the issue of whether EPA is a distinct clinicopathological entity.


**Supplementary data**