

Trachyonychia in a patient with chronic myeloid leukaemia after imatinib mesylate

YM Lau *, YK Lam, KH Leung, SY Lin

Hong Kong Med J 2014;20:464.e2

DOI: 10.12809/hkmj134084

An 86-year-old man presented with leukocytosis in December 2009. Bone marrow biopsy showed chronic myeloid leukaemia in chronic phase and cytogenetic studies showed t(9;22)(q34;q11.2) translocation. He was initially put on imatinib 300 mg daily; subsequently, this was increased to 400 mg daily. He developed pruritic skin rash within 3 months of initiating imatinib. Initially, the skin condition improved with topical steroid. However, there was progressive development of white streaks and scaling of skin over the face, scalp, trunk, limbs, and trachyonychia with onycholysis of fingers and toes. There were no mucosal lesions. Skin biopsy findings were consistent with lichenoid drug reaction. Imatinib was stopped and changed to nilotinib. The skin and nail conditions progressively improved while the patient was on nilotinib.

Imatinib mesylate has been the standard treatment for chronic myeloid leukaemia for 10 years.¹ Imatinib mesylate inhibits tyrosine kinases of bcr/abl, c-kit, and platelet-derived growth factor receptors, and cutaneous reactions are the commonest side-

effects in patients receiving this drug.^{2,3} Trachyonychia results from disruption of the nail matrix cells, and can be induced by chemotherapeutic agents.⁴ Although paronychia inflammation is commonly induced by kinase inhibitors, trachyonychia is rarely reported. Cross-reactivity between different tyrosine kinases has rarely been reported.⁵ The absence of cross-reactivity between imatinib and nilotinib in this patient suggests that the mechanism of drug reaction is not related to the inhibition of tyrosine kinase.

YM Lau *, FHKCP, FHKAM (Medicine)

YK Lam, FHKCP, FHKAM (Medicine)

KH Leung, MRCP

SY Lin, FHKCP, FHKAM (Medicine)

Department of Medicine and Geriatrics, United Christian Hospital, Kwun Tong, Hong Kong

* Corresponding author: lym570@ha.org.hk

References

1. Peggs K, Mackinnon S. Imatinib mesylate—the new gold standard for treatment of chronic myeloid leukemia. *N Engl J Med* 2003;348:1048-50.
2. Gardembas M, Rousselot P, Tulliez M, et al. Results of a prospective phase 2 study combining imatinib mesylate and cytarabine for the treatment of Philadelphia-positive patients with chronic myelogenous leukemia in chronic phase. *Blood* 2003;102:4298-305.
3. Wahiduzzaman M, Pubalan M. Oral and cutaneous lichenoid reaction with nail changes secondary to imatinib: report of a case and literature review. *Dermatol Online J* 2008;14:14.
4. Chen W, Yu YS, Liu YH, Sheen JM, Hsiao CC. Nail changes associated with chemotherapy in children. *J Eur Acad Dermatol Venereol* 2007;21:186-90.
5. Novitzky-Basso I, Craddock C. Cross-intolerance to imatinib, dasatinib and nilotinib therapy in a patient with chronic myeloid leukaemia. *Eur J Haematol* 2011;86:548-9.



FIG. Severe trachyonychia with onycholysis