
Chemotherapy-induced leukonychia

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A 24-year old female patient with acute lymphoblastic leukemia was treated with the induction therapy of the GIMEMA ALL protocol based on vincristine, daunorubicin, asparaginase and prednisone. In the second month of therapy, she was found to have white bands on all her fingernails. There were two bands on each fingernail (Figure), but her toenails were not affected. It was observed that the transverse white nail bands moved distally in time and disappeared after cessation of chemotherapy, and that longitudinal nail growth was not affected. The patient hadn't a history of trauma of the nails. This transient disorder of nail matrix is called true leukonychia whereas the pathology of nail bed and fold is known as apparent leukonychia.¹ The white nail bands also known as Mees' lines² were first described by Mees in 1919 as associated finding of arsenic intoxication.³ In patients receiving cancer chemotherapy transverse leukonychia is a side-effect of treatment rather than a consequence of the underlying cancer. The chemotherapeutic agents that most frequently lead to white nail bands are doxorubicin, vincristine, cyclophosphamide, methotrexate and 5-fluorouracil.^{4,6} Nail changes as a result of chemotherapy are usually transitory and disappear with therapy cessation and the nail growth.

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Figure.

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