Melorheostosis, also known as Leri’s disease and flowing periosteal hyperostosis, is a rare cause of pain and stiffness in a limb. The appearance is of “candle greasing” down one side of one or several bones of the body. We describe a case referred to tertiary care center with suspicion of renal cell carcinoma with diffuse bone metastasis. After reassessment, the patient was diagnosed melorheostosis with renal AV malformation. He was reassured about the benign nature of the disease and is asymptomatic.

Key words: Flowing periosteal hyperostosis, Leri’s disease, melorheostosis, renal AV malformation

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serum chemistry were normal. Left radical nephrectomy was done in April 2003. Operative findings revealed a mass involving left kidney, with hydronephrotic changes. Histopathological examination (HPE) revealed arterial malformation of kidney [Figure 4]. Patient was referred to tertiary care center with an impression of renal cell carcinoma with diffuse bone metastasis. He was reevaluated and found to have high serum alkaline phosphatase (Alp) levels. In view of the long history, good performance status and histopathological examination, skeletal survey was done, which revealed hyperostosis of long bones, and the bone of foot resembling wax dripping on one side [Figure 5]. A final diagnosis of melorheostosis was made and the patient reassured. He is on our follow-up for the last 5 years and is asymptomatic.

**DISCUSSION**

Melorheostosis is a rare nongenetic developmental anomaly. The name is derived from the Greek words *melos*, meaning limb; and *rhein*, meaning to flow. Its etiology is unknown, patients present at any age and both sexes are affected equally. It affects mainly the long bones; but in some cases, also short bones of the hands and feet; and rarely, the axial skeleton.\[^{[2]}\] The appearance is of “candle greasing” down one side of one or several of the bones of one half of the body.\[^{[3]}\] Although changes mainly affect cortex, sclerotic changes may extend into the spongiosa of bones. Bone
scintigraphy is positive and shows moderately increased tracer uptake.\(^4\) The skeletal disorder is due to a disturbance of both intramembranous and endochondral bone formations and therefore belongs to the group of “mixed sclerosing bone dysplasias,” a classification proposed by Greenspan.\(^5\,^6\) Melorheostosis is found to be associated with anomalies of blood or lymph vessels in 5% to 17% of cases.\(^7\,^8\) Remarkably vascular anomalies have been always reported to be ipsilateral and have included capillary dysplasia, vascular nevi, arteriovenous shunts, varices, lymphactesia, aneurysms and glomangiosomas, renal artery stenosis, aortic valve insufficiency.\(^8\,^{12}\)

The etiology and pathogenesis of melorheostosis are unknown. Two major hypotheses exist: First, the bony lesions have been ascribed to sclerotomes, which are areas of sensory innervations of skeleton\(^{13}\) and second, the bony lesions are proposed to originate from a postzygotic mutation occurring during embryogenesis.\(^{14,15}\) Histopathology of the bone specimen reveals nonspecific hyperostotic, mainly lamellar, bone formation.\(^{14}\)

Isolated cases of malignancy have been reported in association with melorheostosis - one case of osteosarcoma and one of malignant fibrous histiocytoma. At least, one death has been reported due to complications of this disease, due to resistant pleural effusion secondary to associated vascular malformation. The clinical course is slowly progressive. Severe symptoms may require treatment by sympathectomy or even amputation.\(^{17}\)

**REFERENCES**

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