

## Macrodystrophia lipomatosa

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A 5-year-old girl presented with left hand enlargement since birth. Visual inspection revealed left index and middle finger macrodactyly. Left hand radiographs demonstrated marked osseous and soft-tissue overgrowth of the second (index) and third (middle) digits (Figs. 1 and 2), consistent with macrodystrophia lipomatosa in a median nerve distribution. Areas of soft-tissue overgrowth appeared radiolucent, suggesting the presence of fat. The right hand was normal.

Macrodystrophia lipomatosa is a rare nonhereditary form of focal gigantism that is characterized by osseous and fibroadi-



**Fig. 1** Oblique radiograph, left hand



**Fig. 2** Lateral radiograph, left hand

pose tissue overgrowth [1, 2]. This condition affects either the hand or foot, classically occurring in a median or plantar nerve distribution [1, 2]. Distal and volar digital involvement is typical (as in our case), and affected digit growth usually ceases after puberty [1]. Although the radiographic findings of this condition are generally pathognomonic and further evaluation with MRI is usually not necessary, macrodactyly can be due to numerous other causes, including Proteus syndrome, neurofibromatosis, and a variety of vascular lesions [1, 2].

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### References

1. Goldman AB, Kaye JJ (1977) Macrodystrophia lipomatosa: radiographic diagnosis. *AJR* 128:101–105
2. Fritz TR, Swischuk LE (2007) Macrodystrophia lipomatosa extending into the upper abdomen. *Pediatr Radiol* 37:1275–1277