

Jaime Paulos

## Abstract

The clinical features and images of osteomyelitis can look like a bone tumor. A differential diagnosis must sometimes be made from local osteolytic lesions and malign bone tumors.

## Keywords

Osteomyelitis • Tumor-like bone lesions • Brodie's abscess

Although the diagnosis of osteomyelitis can be well defined, some cases can propose a differential diagnosis from a bone tumor [2].

**Brodie's abscess:** this is a subacute osteomyelitis with most cases located in the metaphysis of long bones (tibia, femur) [1, 3]. It is a monostotic lytic lesion surrounded with sclerosis, with few inflammatory signs and frequently the germen is not found (bacteriological and histological studies must be made).

Some other cases can show a periosteal reaction wich looks like an onion bulb, confusing it with a bone tumor such as Ewing's sarcoma or osteosarcoma mostly seen in children or adolescents [4] (Fig. 27.1).



**Fig. 27.1** Periosteal reaction

## References

1. Pranshu Agrawal, Anshul Sobti. Brodie's abscess of femoral neck mimicking osteoid osteoma: diagnostic approach and management strategy. *Ethiop J Health Sci.* 2016;26(1):81–4.
2. Lindenbaum S, Alexander H. Infections simulating bone tumors: a review of subacute osteomyelitis. *Clin Orthop.* 1984; 184:193–203.
3. Cabanela AE, Franklin H, Beabout JW. Osteomyelitis appearing as neoplasms. *Arch Surg.* 1974; 109:68–72.
4. McGuinness B, Wilson N, Doyle AJ. The penumbra sign on T1 weighted Mri for differentiating musculoskeletal infection from tumor. *Skeletal Radiol.* 2007;36(417):421.

J. Paulos (✉)  
Pontificia Universidad Católica de Chile, Santiago, Chile  
e-mail: [paulos.jaime@gmail.com](mailto:paulos.jaime@gmail.com)