

# Spinal osteoid osteoma

Small, benign osteoblastic tumor consisting of a highly vascularized nidus of connective tissue surrounded by sclerotic bone.

## Epidemiology

Three-quarters of [osteoid osteomas](#) are located in the long bones, and only 7-12% in the [vertebral column](#).

## Clinical features

The classical clinical presentation of spinal osteoid osteoma is that of painful scoliosis. Other clinical features include nerve root irritation and night pain.

## Diagnosis

Osteoid osteoma has characteristic computed tomography (CT) findings. Because magnetic resonance imaging (MRI) findings of the osteoid osteomas causing intense perinidal edema can be confusing, these patients should be evaluated with clinical findings and other imaging techniques <sup>1</sup>.

## Treatment

[Spinal osteoid osteoma treatment](#).

## Case series

A retrospective review of 81 cases of osteoid osteoma of the mobile spine submitted to surgical treatment.

**OBJECTIVE:** Analyze pro and contras of different techniques (conventional and minimally invasive) for the treatment of osteoid osteoma.

**SUMMARY OF BACKGROUND DATA:** Intralesional excision has been considered the standard treatment for spinal osteoid osteoma. The high success rate of minimally invasive surgery in the treatment of a variety of spinal disorders lead us to believe this technique can also be applicable for the treatment of osteoid osteoma of the spine.

**METHODS:** Eighty-one patients affected by osteoid osteoma were consecutively treated by the same team with intralesional excision using conventional or minimally invasive approach by video-assisted

endoscopy, microscope, or percutaneous radiofrequency coagulation. The clinical features, the radiologic findings, and the outcome were reviewed. Pain and neurologic symptoms, were scored before surgery, after surgery and at the follow-up. Complications and local recurrences were also recorded.

**RESULTS:** Immediate relief of pain was observed after surgery in all patients. One patient showed mild neurologic impairment before treatment but became free of neurologic symptoms postoperative. Five local recurrences were found in four patients, always associated with pain. Three of these patients underwent surgery for a second time and one patient for a third time. There were two complications because surgery in two patients. One patient developed a pneumothorax, the other a hematoma. No related cases of kyphosis or scoliosis surgery were observed.

**CONCLUSION:** Conventional excision therapy is a effective and reliable treatment for osteoid osteoma associated to low morbidity and low local recurrence rate. Minimally invasive surgery is emerging as an alternative method, reducing soft tissue trauma and the collateral damage caused by traditional surgical approach, allow patients a more rapid and complete return to normal function <sup>2)</sup>.

1)

Gokce E, Ayan E, Celikyay F, Acu B. Radiological imaging findings of a case with vertebral osteoid osteoma leading to brachial neuralgia. J Clin Imaging Sci. 2013 Nov 28;3:54. doi: 10.4103/2156-7514.122324. PubMed PMID: 24404413.

2)

Gasbarrini A, Cappuccio M, Bandiera S, Amendola L, van Urk P, Boriani S. Osteoid osteoma of the mobile spine: surgical outcomes in 81 patients. Spine (Phila Pa 1976). 2011 Nov 15;36(24):2089-93. doi: 10.1097/BRS.0b013e3181ffeb5e. PubMed PMID: 21304430.

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