

# OSTEOID OSTEOMA

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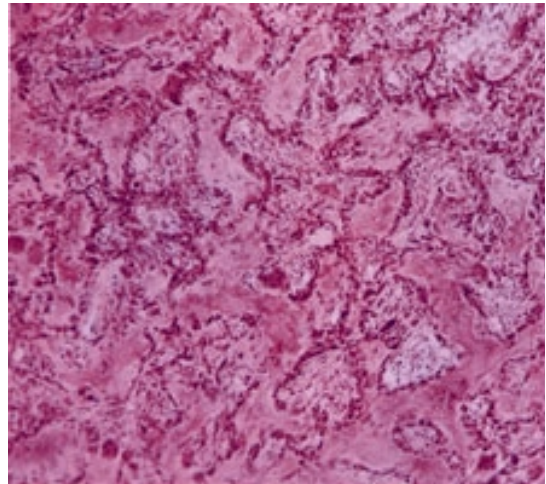
### Special points:

- Osteoid osteoma is a benign bone-forming tumor.
- It is most frequent in the legs, especially the femur.
- Osteoid osteoma is usually found in children and young adults.
- The tumors are painful, worse at night.

## WHAT IS OSTEOID OSTEOMA?

Osteoid osteoma is a benign bone-forming tumor occurring mostly in legs, especially in femur.

The tumor occurs most frequently in the second decade and affects males twice as often as females. The proximal femur is the most common location followed by the tibia, posterior elements of the spine, and the humerus. Osteoid Osteoma is found in the diaphysis or the metaphysis of the proximal end of the bone more often than the distal end.



**Light micrograph of an osteoid osteoma. The lesion consists of abundant osteoid, osteoblasts, fibroblasts, and blood vessels.**

Osteoid osteomas consists of a central region, or nidus, less than 2 cm in diameter, containing osteoblasts forming large volumes of disorganized osteoid, capillaries, and occasional osteoclasts (See figure above). A larger region of reactive new bone formation that matures to form to become dense lamellar bone surrounds the central region. A thin rim of granulation tissue may separate the central osteoid-forming region from the dense reactive bone.

## DIAGNOSIS

The two methods are used to diagnose the disease: (1) **Radiological** and (2) **MRI**. The classic radiological presentation of an osteoid osteoma is a radiolucent nidus surrounded by a dramatic reactive sclerosis in the cortex of the bone. The center can range from partially mineralized to osteolytic to entirely calcified. The lesion can occur only in the cortex, in both the cortex and medulla, or only the medulla. The reactive sclerosis may be present or absent. The four diagnostic features include (1) a sharp round or oval lesion that is (2) less than 2 cm in diameter, (3) has a homogeneous dense center and (4) a 1-2 mm peripheral radiolucent zone.

MRI is the preferred method of evaluation, especially if the lesion is in the spine or obscured by reactive sclerosis. The radiologic differential includes osteoblastoma, osteomyelitis, arthritis, stress fracture and enostosis.

## CLINICAL FEATURES

Most osteoid osteomas occur in children, adolescents, or adults younger than 30 years. They can cause considerable pain usually worse at night. Typically, aspirin provides excellent relief. Osteoid osteomas occur most frequently in the diaphyses and metaphyses of the long bones, but they can develop in any part of the skeleton. When they involve bone near synovial joints, they can cause joint effusions, muscle spasms and joint contractures. When in a vertebra, scoliosis may occur. In children, overgrowth and angular deformities may occur.

Soft tissue swelling and tenderness are often associated with progression of the disease. Because of the indolent nature of early osteoid osteoma, patients may wait months to years before seeking medical attention. Additional clinical manifestations depend on the age of the patient and the location of the lesion.

The pain due to an osteoid osteoma may eventually resolve spontaneously and therefore the patient may be treated symptomatically, but in most cases lesions are treated by **surgical excisions**.

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## CASE PRESENTATION

A female child aged 8 yrs had complaint of pain in right hip joint which was more while walking and at night. The case was originally seen by her family doctor and when this pain doesn't respond to analgesics the case was referred to Hinduja Hospital, Mumbai, India for further diagnosis and treatment in the month of July 2001. An **MRI** was performed and it was diagnosed as a case of **Osteoid Osteoma**.

A **digital X-ray** was done on the right Hip Joint showing **OSTEOID OSTEOMA**.

The patient was prescribed with certain anti-inflammatory and analgesic medicines but unfortunately she did not respond well. Later on, it was decided that the patient should be treated **SURGICALLY** by orthopedic Surgeons of Hinduja Hospital.

The parents of the child were afraid and they did not agree to go for surgery at this age. The case was henceforth brought to Homoeopathy Clinic on 13/11/2001 for treatment.

After going through the clinical diagnosis and symptomatology, the homoeopathic medicines were prescribed and **patient became symptom free**. To verify whether this is only a symptomatic relief or the changes in the right femur have been resolved clinically, a Digital X-Ray was again performed on 13/7/2002 **confirming total eradication of the Osteoid Osteoma** exactly after a duration of 10 months of the **Homoeopathic Treatment**.

*The effect of **aspirin** is an important diagnostic clue here.*

*Characteristically, the **pain intensified at night** and subsided with **aspirin**.*

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## CONCLUSION

Homoeopathy can successfully prevents Surgery in many cases if medicines are prescribed on the basis of confirmed diagnosis & patients individual symptomatology. The following is the list of Homoeopathic Remedies used to treat the case presented.

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## HOMOEOPATHIC REMEDIES

1. **Calcarea Carb:** Fear of Operation, Pain, Suffering, Hospital, Hip Joint inflamed and painful< pressure, Exertion, Cold, Standing, Puberty.
2. **Hekla Lava:** Exotosis, Bone Necrosis, bone tumors in general, Ostetis, Painful to touch.
3. **Drosera:** Pain in the right Hip Joint, must limp when walking, < at night, especially after midnight.

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vidisha roach chandhary  
Synovialis (ICP) hnt

Adv

CT/MRI of Pelvis for @ hip to  
check for fractures, lesions  
@ hip, & Lesions by Dr  
Manu Shroff

Ache

MRI - @ hip

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24/8/2001

To

Mr. Dr. Mann

Surgeon in Locality

the letter

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Dear Sanjay

We would prefer to do an MRI  
for Vidhwa - this will show  
the bones + soft bones as well and  
avoid any ionising radiation.

Thanks,

Mann

24/7/01



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## DEPARTMENT OF IMAGING

Patient Name : VIDHISA RAOCHODHARY  
HH No. : Bed :  
Referred by : DR. S. AGARWALA

Age : 08Y Sex : Female  
Exam No. : MRI 34084 Dt. : 28/07/01  
Reported Date : 30/07/01

### ■ ■ EXAMINATION ■ ■

MRI OF THE HIP JOINTS.

### ■ ■ REPORT DETAILS ■ ■

Multipplanar multiecho MR of the hip joints was performed.

Marrow signal abnormality, appearing hypointense on T1 and hyperintense on STIR and T2 weighted images is seen in the right femur involving the metaphysis, neck and proximal diaphysis. Associated anterior cortical thickening and para osseous fluid is seen around the proximal diaphysis. Minimal fluid is also noted in the right hip joint.

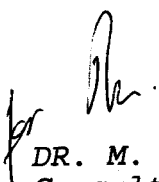
A tiny rounded lucency is seen antero-inferiorly at the femoral neck close to the lesser trochanter, which may be an osteoid osteoma nidus. This is also confirmed on C.T.

The right femoral epiphysis is normal. The epiphyseal plate reveals no abnormal widening or irregularity. The right acetabulum is normal

The left femur and left hip joint spaces are normal.

The rest of the visualised bones and soft tissues are normal.

**CONCLUSION:** SUBTLE TINY LUCENCY AT THE ANTERO-INFERIOR CORTEX OF RIGHT FEMORAL NECK WITH SURROUNDING MARROW EDEMA AND CORTICAL THICKENING WITH MINIMAL ADJACENT FLUID. THIS IS LIKELY TO BE AN OSTEOID OSTEOMA. THE OTHER DIFFERENTIAL DIAGNOSIS COULD BE A CHRONIC INFECTIVE PROCESS.

  
DR. M. M. SHROFF M.D.  
Consultant Radiologist

# DR. JANKHARIA'S IMAGING CENTRE

X-RAY OPG  
ULTRA SOUND  
COLOR DOPPLER  
MAMMOGRAPHY  
BONE DENSITY  
SPIRAL CT  
OPEN MRI



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**NAME : BIDISHA ROY CHOUDHARY**

**F / 9 DATE : 11/08/2001**

**REFERRED BY : DR. CHAUBAL K. V (MS)**

**EXAMINATION: RIGHT FEMUR with HIP JOINTS**

The bones at the right hip joint show normal alignment.

The significant finding is the marked thickening of the bone particularly in the inter-trochantic region in the AP view and in the Lateral View, it appears that there is a periosteal thickening in the anterior part of the cortex and there is a quite demarcation with the cortex and the periosteal thickening.

No break in the cortex is seen.

No significant soft tissue mass is seen.

The joint space and articular margins are normal.

## **Remarks:**

There is a marked cortical thickening in the periosteum anteriorly and laterally just below the inter-trochantic line and it is clearly demarcated from the cortex in the lateral view.

The possibility of osteoid osteoma must be kept in mind.

**Dr. Bijal Jankharia**

**Dr. G. R. Jankharia**





**NAME : BIDISHA ROYCHOUDHARY**

**F / 10 DATE : 13/07/2002**

**REFERRED BY : DR. SAHNI**

**EXAMINATION: PELVIS WITH BOTH HIPS WITH RIGHT FEMUR**

The bones at the hip joints show normal alignment.

No focal bone lesion or periosteal reaction is seen.

The joint space and articular margins are normal.

No loose bodies are seen.

No soft tissue mass or calcification is seen.

The sacro-iliac joints are normal.

**Remarks:**

No significant abnormality is seen in the bones of the hip joints.

**Dr. Ambrish Bhat**

  
**Dr. Bhavin Jankharia**