

Clear Cell Chondrosarcoma

A clear cell chondrosarcoma is one of the rarest variants of the chondrosarcoma. It is found more commonly in males than females and between the ages of 20 and 50 years. The most common location for this tumor is in the femoral head. Radiographically the clear cell chondrosarcoma has the appearance of a lytic lesion in the epiphysis, similar to the chondroblastoma in a younger age group for which it is frequently misdiagnosed. It has a geographic pattern with central stippled calcification similar to that of a chondroblastoma. Histologically it looks like a chondroblastoma with the presence of benign macrophages and polyhedral stem cells in a clear cell chicken wire appearance. But in some areas there will be evidence of a low-grade chondrosarcoma in which giant cells are not seen, clearly separating it from the chondroblastoma.

The treatment for this condition consists of a wide resection that, if the lesion presents in the femoral head, would be a transcervical resection and replacement with a bipolar prosthesis. If the lesion is treated by simple curettement, the recurrence rate is quite high compared to the chondroblastoma. The chance for pulmonary metastasis is very unlikely and local recurrence is rare following a wide resection.