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Bone cementation of giant-cell tumor. About 37 cases with long term follow up.

G. Delepine, F. Delepine, D. Goutallier, P. Hernigou

Introduction : Treatment of benign giant-cell tumor is difficult. Curettage and bone grafting is the usual conservative treatment. High rates of recurrence (20 to 50 %) have been reported leading to subsequent surgery and loss of function.

Patients : 37 patients(p.) (19 males and 18 females aged 27-59 years average 30) with benign giant cells tumor of femur in 13, tibia in 11, radius in 6, spine in 3, humerus in 2, 1 fibula and 1 os calci were treated by our group between 1972 and 1994. 28 were first hand patients ; the 9 others referred for recurrence. 17 of the tumors were radiologically aggressive (7 of these fractured) and 10 evolutive.

Method : Treatment consisted by curettage through a wide window (eventration) then the residual cavity was filled with metacrylate and osteosynthesis performed to prevent secondary fracture. After operation immediate mobilization was authorized. Median follow up is 13 years.

Results : 15 recurrences (including 4 soft tissue recurrences) were observed in 7 p.. 6 months to 30 months after surgery. The p. had new cementations eventually repeated. At last follow up (6-25 years ; median 15 years) all p. are free of disease but 3 had prostheses. According to the EMSOS criteria, the late functional score is rated excellent in 32 p., good in 4 and fair in 1. Mobility was almost equivalent to normal side and no degenerative changes of the adjacent joint occurred.

Conclusion : Cementation in giant-cell tumor as is exposed to recurrence and sometimes requires to be repeated. But immediate rehabilitation and late results plaie for this conservative procedure even in aggressive, huge, fractured or recurrent tumors.