



EMSOS 2018

AMSTERDAM

EMSOS 2018 will be held from 9 - 11 May 2018
in NH Krasnapolsky Hotel,
Dam Square, Amsterdam

A NEW BONE GRAFT FOR BONE TUMORS: PRELIMINARY RESULTS (POSTER)

Authors: Boffano Michele | Ratto Nicola | Pellegrino Pietro | Marone Stefano | Ferro Andrea | Boux Elena | Albertini Ugo | Piana Raimondo

Orthopedic Oncology, CTO Hospital, AOU Città della Salute e della Scienza Torino, Italy

OBJECTIVE Several synthetic bone grafts are now available. Each graft has its own specific properties. SmartBone ®(IBI, S.A., Switzerland) is produced by combining natural bovine bone mineral structures with bioresorbable polymers and cell nutrients. The aim of the study is to evaluate both structural and biological short term properties and its reliability in orthopedic oncology

STUDY DESIGN retrospective study

METHODS In the period October 2016-October 2017 in an Italian Reference centre for bone and soft tissue tumors 11 patients (age range 19-68ys) with bone tumors were treated and the bone gap was filled in with Smartbone. The diagnosis were: chondrosarcoma (3), giant cell tumor (GCT,1), enchondroma (3), benign fibrous histiocytoma (1), bone cyst (3). A follow up was conducted for a minimum of 4 months (range 4-16 months) with X-ray to evaluate graft integration and eventually with CT or MRI in case of possible local recurrence. Complications (infection, recurrence, fracture, early resorption) were also investigated.

RESULTS No infection and no fractures were observed. One local recurrence in a patellar GCT occurred after 12 months. Two cases of wound dehiscence occurred requiring advanced dressing or flap covering with no further secondary complications. The periodic X-ray showed a good to excellent graft integration in all patients within 10 weeks.

CONCLUSIONS Preliminary results of grafting bone lesions with Smartbone are satisfying. Graft integration occurred with no complications or inflammatory reaction in the surrounding tissues. Smartbone has also a structural function allowing an early weight-bearing in lower limb lesions. Prospective and multicentric studies are mandatory to confirm these results.