4TH ANNUAL ORTHOPAEDIC CONGRESS

July 15-16, 2019 | Zurich, Switzerland

Early efficacy of deep freezed bone allografts in treatment of various orthopaedic conditions

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Osteogenic augmentation is required in various orthopaedic conditions. Autograft is the gold standard but has limitations of increased donor site morbidity and limited amount. Bone graft substitutes are costly, limited in quantity and don't integrate with host bone. Deep freezed bone allografts are a viable option, though not widely used in India and there are sparse reports in literature from developing countries. This paper studies early efficacy of deep freezed bone allografts in treatment of various orhopaedic conditions. It's a prospective descriptive study. Strict inclusion and exclusion criteria, as per standard guidelines of American Association of Tissue Banking, were followed. We have a inhouse facility of gamma irradiated deep freezed bone allografts available in hospital. 20 patients with comminuted fracture, fractures with delayed union/ malunion / nonunion, depressed intra articular fractures, giant cell tumor of proximal ulna and proximal humerus, aneurysmal bone cyst of distal radius, etc were operated during one year and followed up for atleast 24 weeks thereafter. Sloof's Criteria was used for assessing osteointegration of grafts. Efficacy was authenticated by observing complications like serous discharge from surgical site, infection (superficial/deep), rejection of graft, clinical and radiological integration of graft, maintenance of articular reduction etc. Allografts have not only accepted well but fractures have healed and bone integration is at various stages. Only one patient got infected (5%). The overall success rate in terms of adequate osteointegration is 95 %. 19 out of 20 patients in our study group had either attained or at various stages of osteointegration and healing. We conclude that deep freezed bone allografts is a viable option in all patients requiring bone grafts, thus give satisfactory surgical outcome, with no serious side effects.

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