Autogenous bone graft or foreign material?

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We read with deep interest the article by Şener et al. [1] and comments by Cai et al. [2]. We would like to address additional concerns regarding methodology and conclusions of the study. The graft used in study group 4 does not appear to have any osteoinductive or osteoprogenitor properties as the graft was morsellised, washed and dried before the antibiotic impregnation process. It merely acted as an antibiotic loaded osteoconductive scaffold rather than a biological bone graft. Moreover, drying the graft can lead to alteration of bone properties as reflected in the study by nonunion in five cases and macroscopic infection in three cases in group 4. Secondly, debridement was undertaken in groups 2, 3 and 4. All of the tibias in the debridement group were completely healed with no infection macroscopically. Union was present only in three cases in the graft group. The posterior cortices of the tibias healed radiologically in the cement group. It thus seems that antibiotic-loaded bone

grafts/beads acted as barriers to bone healing in the animal model or else the debridement in groups 3 and 4 was inadequate. Thirdly, the Sener et al. conclusion of antibiotic-loaded bone cement use after two or three unsuccessful attempts at debridement is not supported by this study. The study data only support the view that a thorough debridement remains the key to infection control and bone healing.

References

1. Şener M, Kazimoglu C, Karapınar H et al (2009) Comparison of various surgical methods in the treatment of implant-related infection. *Int Orthop*. doi:10.1007/s00264-009-0750-0
2. Cai XZ, Jin AD, Yan SG (2009) Did local teicoplanin delivery systems inhibit or aggravate implant-related infection? *Int Orthop*. doi:10.1007/s00264-009-0830-1

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