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Letter to the Editor

Bone grafts for jaw augmentation procedures: anterior versus posterior iliac crest

Sir,

Cortico-cancellous bone graft is considered the material of choice for jaw augmentation because of its rich cellularity, its rapid revascularization, and its potential to induce new bone formation[2]. Several donor sites have been advocated, but the iliac crest is still considered the golden standard for the procedure[3,6]. However, the choice between the anterior and posterior iliac crest as the preferred site for harvesting has been a subject of debate[5–8].

Nkenke et al.[10] in a recent issue of the journal compared the morbidity of harvesting of bone grafts from anterior iliac crest with that of posterior iliac crest for preprosthetic augmentation procedures. The authors and others have reported that the posterior approach yields a larger graft volume[5,7,8] and has a lower post operative morbidity rate[1,7,8]. In addition, the authors reported that by post-operative day thirty, there was no statistically significant difference in pain and thermal sensitivity test (PATH test), and visual analogue scale (VAS) between the anterior or posterior approaches; and also no gait disturbance could be observed in both groups of patients. Based on these findings, they concluded that the *posterior iliac crest should be taken into account even for less extensive augmentation procedures*. I feel that these findings, however, do not justify their conclusion. Despite the obvious advantage of posterior over anterior iliac crest donor site in terms of reduced morbidity and large volume of bone harvest there are significant issues such as the increased operating time and the need to rotate the patient to a prone position, thereby making simultaneous bone harvesting and augmentation procedure by two surgical teams impossible. These are drawbacks that can not easily be overlooked[7,8]. Moreover, morbidity associated with harvesting of bone grafts from anterior iliac crest harvest can be minimized by paying attention to the identification and preservation of the anterior superior iliac spine (ASIS)—firstly, the ASIS is the origin of a number of important structures, namely the fascia lata, the inguinal ligament, tensor fascia lata, and the sartorius and iliacus muscles, and secondly, because of the variable anatomic relationship of the lateral cutaneous nerve of thigh (LCNT) to the ASIS[2]. Furthermore, the avoidance of excessive muscle dissection medially and identification and repair of the incised fascia lata in anterior iliac crest approach minimize potential disturbance of the gait postoperatively[4,9].

In conclusion, despite the obvious advantages of posterior over anterior iliac crest donor site, the latter still has a place in jaw augmentation and should be considered, especially when moderate amount of bone graft is needed for less extensive augmentation procedure. For jaw augmentation where larger amount of cortico-cancellous bone grafts are needed, the posterior ilium is the preferred site.

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