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Acetabular roof reconstruction with pedicled iliac graft: early clinical experience

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In the article “Acetabular roof reconstruction with pedicled iliac graft” published in *International Orthopaedics* [1], we presented a new method for reconstruction of the supero-lateral acetabular rim using a vascularised iliac graft based on the deep-circumflex artery and vein. Pedicled iliac graft is one of the most commonly used

grafts, because it provides a strong piece of bone while the vascular pedicle ensures excellent bone potential for rapid bone healing [4, 5].

Standard methods of appropriate cup positioning in patients with inadequate bone stock include cotyloplasty (controlled medialisation) or even placing the cup super-

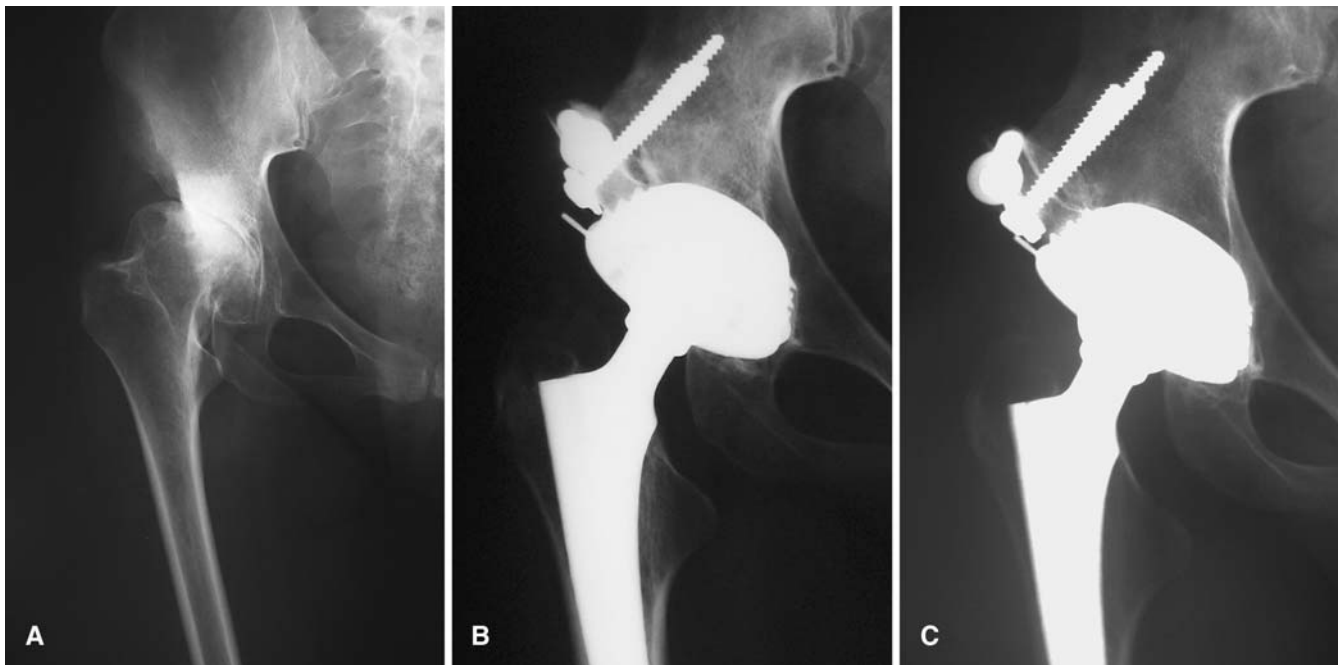


Fig. 1A–C Roentgenograms of the first patient (A) pre-operatively, (B) 6 months post-operatively, (C) 1 year post-operatively with obvious graft incorporation

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iorly where the bone stock is better but not laterally [2]. Nevertheless, in many patients, some kind of bone stock reconstruction is necessary and numerous bone-grafting techniques have been reported. However, after good early results, mid-term failure rates of these reconstruction

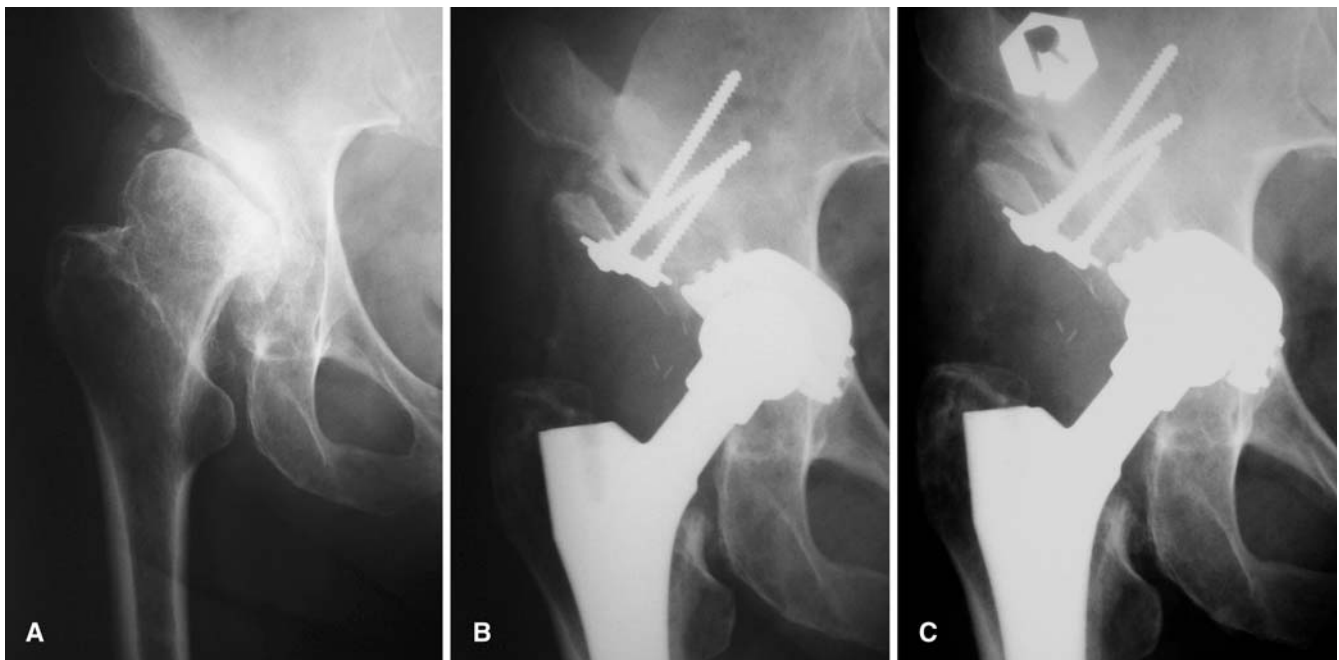


Fig. 2A–C Roentgenograms of the second patient (A) pre-operatively, (B) 6 months post-operatively, (C) 1 year post-operatively with obvious graft incorporation

techniques are high resulting in early revision procedures. Such large structural non-vascularised grafts incorporate slowly and incompletely and often collapse under load [3].

Now we present the early clinical experience of two patients where the pedicled iliac graft based on the deep circumflex artery and vein were used. Both patients were women, 37 and 60 years of age and had the procedure done before 20 and 15 months respectively. Both patients have equal leg length, excellent endoprosthesis function and no donor-site morbidity. The lateral femoral cutaneous nerve was preserved in both patients. Prospective roentgenograms in both cases showed excellent bone healing, incorporation and remodelling under load as early as 6 months post-operatively, and even more after one year (Figs. 1 and 2).

Early clinical experience of acetabular roof reconstruction with pedicled iliac graft showed that the use of such a pedicled bulk structural graft provides good primary stability and good potential for bone incorporation and remodelling under load. However, as we stated in our

original paper, only the mid- and long-term studies on large group series will show the outcome after this reconstruction procedure [1].

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