

## **Clinical Research Surgical**

### **Reconstruction of the Severely Atrophic Mandible with Iliac Crest Grafts and Endosteal Implants**

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#### **INTRODUCTION**

Numerous surgical techniques have been advocated for reconstruction of the severely atrophic mandible.

#### **OBJECTIVE**

This abstract describes the treatment of two patients using the following protocol: Autogenous iliac crest bone grafting via a transcutaneous submental approach, the subsequent placement of endosseous implants transorally, and prosthetic rehabilitation with implant supported prostheses.

#### **METHODOLOGY**

The records of two patients presenting to the Department of Oral and Maxillofacial Surgery, Mid-Western Regional Hospital, Limerick, with atrophic mandibles were reviewed. Bone height (assessed radiographically) pre-operatively was less than 7mm. Both patients underwent placement of iliac crest bone grafting to the anterior mandible and a mixture of cancellous bone and hydroxyapatite posteriorly. Following graft consolidation for four months, four endosteal implants were placed in the anterior mandible. Prosthetic rehabilitation was completed, six months later, with implant supported prostheses.

#### **RESULTS**

Both patients underwent successful prosthetic rehabilitation following bone grafting. There were no sensory or motor nerve deficits resulting from the surgery. Implant survival rate, 3 years following placement, is 100%.

#### **CONCLUSION**

Based on these results, patients suffering from significant mandibular bone resorption secondary to long term loading by mucoperiosteally supported removable dentures may be safely and predictably restored to a satisfactory level of function and aesthetics using autogenous corticocancellous iliac crest bone grafting followed by placement of endosseous implants which support fixed or removable prostheses.