Results of a Surgical Strategy for Salvage of Failed Silastic Joint Replacements

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Disclosure and conflict of interest

Title: Results of a Surgical Strategy for Salvage of Failed Silastic Joint Replacements

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• My disclosure is in the final AOFAS Program Book.
• I have no potential conflicts with this presentation.
Introduction

- Despite high complication rates documented in the literature, silastic toe joint replacements are still commonly implanted.
- When these fail, they present a surgical challenge because of the cortical and cancellous bone loss associated with their use.
- Options include removal alone, revision arthroplasty and fusion.
- The largest published series of salvage procedures is only 14 and describes the procedure as technically demanding.
- In this study, we describe results of our novel technique of bony distraction arthrodesis using memory staples.
Methods

- 10 Patients, who were symptomatic following silastic joint replacements were treated surgically.
- Iliac crest graft was used to produce a geometrically congruent bone block.
- The bone block was secured with memory staples and the patient was mobilized in a heel weight bearing shoe.
- The patients were allowed to return to normal foot wear at six weeks.
- They were evaluated with radiographs at six and twelve weeks, and with the AOFAS score at twelve weeks.
Surgical technique

- Iliac crest bonegraft harvested after measuring the defect from preoperative x-rays and interoperative measurement of the defect after removing the silastic implant.
- The boneblock is sculptured to fit into the defect.
Surgical technique

Assessing the bone defect after removal of the implant
Surgical technique

Preparation, placing the graft in the defect and securing the graft with memory staples to achieve distraction arthrodesis.
Results

- 10 patients underwent surgery.
- All had painful joints and 8 had transfer metatarsalgia.
- Significant bony lysis was seen in 7 of these patients.
- After 6 weeks, 9 were almost pain free.
- One patient had continued pain and was diagnosed with complex regional pain syndrome.
- All had achieved union.
- AOFAS scores went up from a mean of 48 to 69 (p<0.05).
- Two patients had harvest site discomfort.
Discussion and Conclusions

• Salvage of silicone joints presents difficulty because of the volume of bone loss associated with their use.

• Our technique was reliable in achieving bony union in all patients in this series.

• The mean improvement in AOFAS score was statistically significant despite one case of complex regional pain syndrome.

• There may be a role for silastic joints in the treatment of hallux rigidus, but patients should be cautioned that failure can result in prolonged pain and challenging revision surgery.
References


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