

## Foreword



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*Consulting Editor*

Surgical correction of hallux rigidus is fairly predictable, and patient acceptance and outcome should be good. There are many surgical alternatives to choose from, all based on the underlying anatomy, the pathology, and the extent of arthritis. To some extent, patient needs for activities and shoe wear do play a role, but in general, this should not influence the decision making for the type of surgery.

By and large the surgical management of hallux rigidus has not changed very much over the past few decades, and this is a good observation, since it implies that what we are doing works. Certainly, in my own practice a cheilectomy, with or without an osteotomy at the base of the proximal phalanx, is the most predictable operation for correction of hallux rigidus. Perhaps the most significant finding regarding the use of cheilectomy is when it is used for more advanced forms of arthritis. From a functional and biological standpoint, there is no reason why a cheilectomy for severe impingement and arthritis should work, and yet unpredictably, it does. I have observed that many patients return years following a cheilectomy for further treatment, but on the opposite foot. When obtaining an Xray, it may seem that the operated foot appears far worse than the now symptomatic foot. Why is this? Is there perhaps some denervation of the joint which takes place during cheilectomy? Is the mechanical decompression sufficient for management of most patients? One would presume that the latter would be correct, since the kinematics of the joint are never normalized following cheilectomy, regardless of the severity of the disease process. For management of the more severe grades of arthritis, although I perform arthrodesis frequently, I have experienced excellent results from interposition arthroplasty, yet despite efforts with various implants, have experienced less than desirable results with various types of implant arthroplasty.

Arthrodesis continues to be a mainstay of treatment in the management of severe arthritis associated with deformity or when other salvage procedures in the forefoot need to be performed simultaneously. Occasionally, osteotomy of the first metatarsal is advantageous. Elevation of the first metatarsal may not have a significant role in the pathogenesis of hallux rigidus, but there is a most definite correlation between metatarsus elevatus and more severe grades of hallux rigidus. Furthermore, a distal oblique metatarsal osteotomy in the manner of a triple osteotomy used to correct the lesser

metatarsal deformity (after Maceira), is very useful for the patient who has a long and elevated 1<sup>st</sup> metatarsal. Osteotomy of the metatarsal or arthrodesis of the 1<sup>st</sup> tarsometatarsal joint must also be part of a surgical treatment armamentarium in which the 1<sup>st</sup> metatarsal is markedly elevated and unstable. This is particularly the case when the joint appears to be normal, and the metatarsal is long and elevated, probably indicating that jamming of the joint occurs in push off. Lastly, there is a group of patients who do not “fit” the typical diagnosis of hallux rigidus, since they have good range of motion, but joint pain due to early arthritis. Intraoperative findings usually indicate a central osteochondral defect of the metatarsal head, which requires treatment. An osteochondral graft can be harvested from the normal dorsal aspect of the joint, a free osteochondral autograft used, or a synthetic bi-phasic graft. The results of treatment are generally good, however things go wrong when the expectations of the patient are not met, not necessarily when biology and mechanics fail.

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