

FIFTH METATARSAL HEAD RESECTION

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Tailor's bunion deformity can present as several different clinical entities of multifactorial etiologies. The prominent fifth metatarsal head may cause symptoms laterally, plantarly, or in both locations. Bursitis and hyperkeratosis are typical concomitant findings.

REVIEW

The structural and biomechanical causes of a tailor's bunion are well documented. Readers are encouraged to review the article by Fallat and Buckholz, and Trepal's chapter on Surgery of the Fifth Ray, in the *Comprehensive Textbook of Foot Surgery* for a comprehensive review of the topic.^{1,2}

Multiple surgical techniques have been described to correct this deformity (Figs. 1, 2). Exostectomy or metatarsal osteotomy by far compromise the majority of procedures performed. Joint destructive arthroplasty procedures have long been ignored as a primary procedure for tailor's bunion. Trepal states, "...that head resection usually

should not be the procedure of choice..." and "... as would be expected, excessive retraction of the fifth toe and transfer lesions under the fourth metatarsal head are frequent sequelae...."² Yet, on what evidence are these commonly held precepts based?

Very few reports on this surgical procedure appear in the literature. In 1986, Addante presented an 8-year follow-up on 35 patients who underwent a total of 50 fifth metatarsal head resection procedures with silicone sphere implant arthroplasty.³ The overall complication rate was 16%. However, only two transfer lesions were noted, and only three patients had persistent postoperative pain, two of which were from remaining lesions.

Dorris and Mandel noted that fifth metatarsal head resection had been discussed anecdotal, and scientific substantiation was lacking. In 1991 they published the most comprehensive review of this procedure.⁴ A retrospective analysis of 50 procedures in 34 patients was performed, using a questionnaire and physical examination. The average follow-up was 17 months. Twenty-one patients (16 female, five male) representing thirty-four procedures were examined. The average age was 26. Four transfer lesions were noted, but only one was symptomatic. Digital deformities were noted in 59% of the patients, representing 20



Figure 1. Metatarsal head resection is best suited for plantar keratomas.

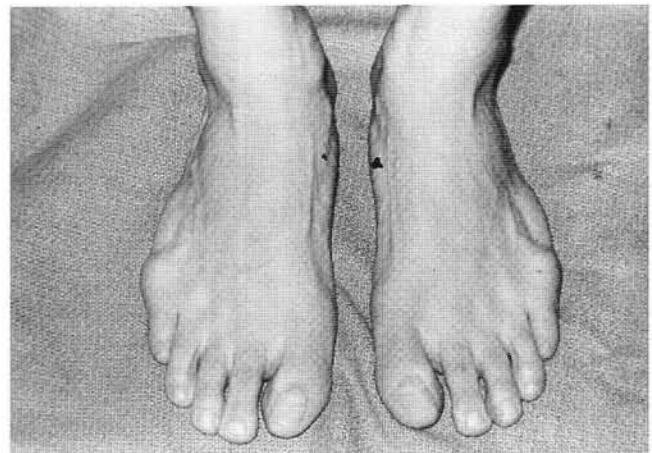


Figure 2. Metatarsal head resection can also be utilized for extremely large tailor's bunions.

toes, of which only four were symptomatic. The overall incidence of symptomatic transfer lesions in the previous studies involving 100 procedures was just 3%.

The author is currently reviewing fifty-three patients who have undergone head resection in the last four years. Initial results are consistent with the previously mentioned studies (Figs. 3-5) The first eleven patients reviewed were all very satisfied with their surgery. One patient developed a callus under the third metatarsal, but is asymptomatic. Three patients noted shortening of the fifth toe but were not concerned. The complete results will be reported at a later date.

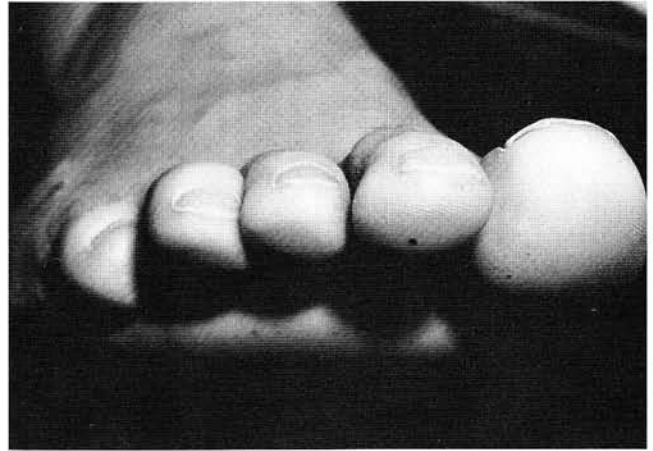


Figure 4. The floating toe can be minimized with extensor tenotomy and postoperative splinting.

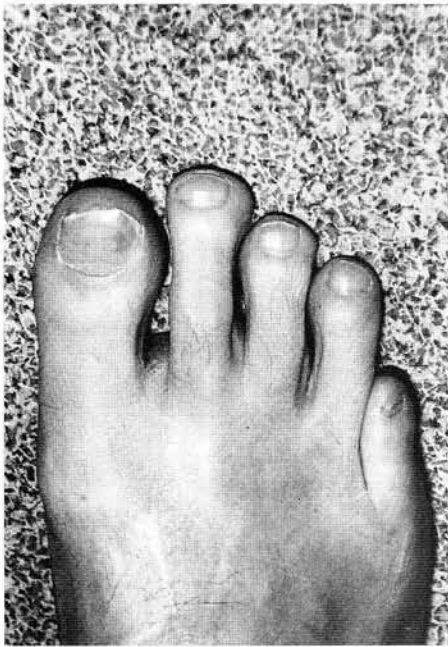


Figure 3. Six-month postoperative view. Digital shortening is apparent.



Figure 5. Postoperative radiograph showing bony proliferation. This has not been a clinical problem.

CONCLUSION

Previously published reports of various osteotomies for tailors's bunion by Konradsen and Nielson, Keating, Catanzariti, and Buchbinder all describe complication rates of symptomatic transfer lesions of greater than 10%.⁵⁻⁸ Transfer lesions following fifth metatarsal osteotomy appear to be a common problem. The overall incidence of 3% after metatarsal head resection compares favorably to, and may be seen as an improvement over an osteotomy.

The ease of performing metatarsal head resection, speed of healing, and lack of postoperative complications, make this a procedure worth considering. The main complication of this technique is digital retraction. This can be minimized by performing an extensor tendon lengthening or tenotomy, and is certainly easier to address than complications which may follow metatarsal osteotomy. Symptomatic transfer lesions are rarely encountered.

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