COMPARATIVE STUDY BETWEEN WILSON AND MITCHELL METATARSAL OSTEOTOMIES FOR THE TREATMENT OF HALLUX VALGUS IN ADULTS

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Although Mitchell osteotomy and Wilson osteotomy are two popular methods for the treatment of hallux valgus, there are no studies directly comparing their results.

Fifty-six patients (73 feet) who underwent a Wilson osteotomy and 30 patients (34 feet) who had a Mitchell osteotomy were followed for a mean period of 33.7 and 38.9 months, respectively. The results were comparable in terms of hallux valgus angle correction and first intermetatarsal angle correction, although symptomatic improvement was higher in the Mitchell group. Moreover, the incidence of postoperative metatarsalgia was significantly lower in the Mitchell group as compared to the Wilson group (11.8% vs 32.9%), while less time was required for the patients who underwent Mitchell osteotomy to return to work or normal activities postoperatively. The difference in symptomatic improvement, incidence of postoperative metatarsalgia and rehabilitation time was even more clearly in favor of the Mitchell group in patients over 55.

The increased stability at the osteotomy site offered by the Mitchell osteotomy compared to Wilson osteotomy could be the reason why patients had a lower incidence of postoperative metatarsalgia and returned to their normal activities faster, thus giving a higher satisfaction rate.

Key words : hallux valgus ; Wilson osteotomy ; Mitchell osteotomy.

Mots-clés : hallux valgus ; ostéotomie de Wilson ; ostéotomie de Mitchell.

INTRODUCTION

Hallux valgus occurs almost exclusively in shoe-wearing populations, affecting mainly women in the fourth, fifth or sixth decade of their lives (4, 12). More than 130 different operative procedures have been described for hallux valgus, but the choice of the suitable operation still remains controversial. In the vast majority of the proposed operations, a first metatarsal osteotomy is performed in various ways and at various sites (1, 2, 7, 8, 14, 21).

Mitchell's osteotomy, as first described by Mitchell *et al.* in 1958, is an almost subcapital first metatarsal osteotomy with lateral displacement of the capital fragment (14), while Wilson's osteotomy, as first described by Wilson in 1963, is an oblique osteotomy of the first metatarsal with lateral displacement of the distal fragment (18). Studies directly comparing two different distal first metatarsal osteotomies are rare (6, 11, 20), and, to our knowledge, no study has been published so far comparing Wilson's osteotomy to Mitchell's osteotomy. A detailed study was therefore undertaken to compare these two simple and frequently used osteotomies.

PATIENTS AND METHODS

Eighty-six patients (107 feet) who underwent either Wilson's or Mitchell's osteotomy in the Royal Bournemouth Hospital between 1980 and 1997 were

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Table I. — Population

WILSON	MITCHELL
73 Cases (56 Patients)	34 Cases (30 Patients)
65 Female (89%) 8 Male (11%)	32 Female (94%) 2 Male (6%)
Mean age : 49.2 years (17-75)	Mean age : 54.2 years (26-78)
Mean follow-up : 33.7 months (14-122)	Mean follow-up : 38.9 months (13-235)
47 sets of xrays available	27 sets of xrays available
Family History : 45/73 (61.6%)	Family History : 21/34 (61.8%)
Symptoms preop : 5.9 years (0.5-20)	Symptoms pre-op : 7.7 years (1.5-30)
Reason : Pain : 94.5%	Reason : Pain : 84.3%
Shoewear : 23.3% (5.5% main)	Shoewear : 32.4% (15.7% main)
Cosmesis : 9.6%	Cosmesis : 8.8%

reviewed. The two population groups were comparable as shown below and in table I.

The Wilson group included 56 patients (73 feet) with an average age of 49.2 years at operation (range 17 to 75 years) and a male to female ratio of 1:8. The average follow-up time was 33.7 months (range 14 to 122 months), and the main reason for operation was stated to be pain in 94.5% of cases, while other or concomitant motivations were limitations in shoewear in 23.3% (5.5% main reason) and cosmesis in 9.6%. Family history preexisted in 61.6% of the patients, and the preoperative duration of symptoms ranged from 0.5 to 20 years (mean 5.9 years).

The Mitchell group included 30 patients (34 feet) with an average age of 54.2 years at operation (range 26 to 78 years) and a male to female ratio of 1 :16. The average follow-up time was 38.9 months (range 13 to 235 months), and the main reason for operation was stated to be pain in 84.3% of cases, while other or concomitant motivations were limitations in shoewear in 32.4% (15.7% main reason) and cosmesis in 8.8%. Family history preexisted in 61.8% of the patients, and the preoperative duration of symptoms ranged from 1.5 to 30 years (mean 7.7 years).

Radiography : Sets of pre- and postoperative xrays were available in 47 patients in the Wilson group and in 27 patients in the Mitchell group. Standard weight-bearing anteroposterior views were studied to measure hallux valgus angle (HVA ; angle between the axis of the first metatarsal and the axis of the proximal phalanx), and first intermetatarsal angle (IM1-2 ; angle between the axes of the first and second metatarsals) (16). The same standard weight-bearing anteroposterior views were studied to measure the shortening of the first metatarsal (ΔL-1) and the decrease in distance between the centers of the heads of the first and fifth metatarsals (ΔL 1-5 ; correction of splay-foot), after magnification was corrected as described by Zlotoff (22).

Operative techniques : All operations were performed under general anesthesia with a pneumatic high-thigh tourniquet. A short dorsomedial skin incision centered over the first metatarsophalangeal joint (MTPJ) was used for both procedures, and exostectomy was routinely performed.

Wilson's osteotomy : (fig. 1) The capsule was incised medially in a Y fashion, and an oblique osteotomy using an oscillating saw was performed. The osteotomy was angled at 45° from medial to proximal and lateral. The distal fragment was then displaced laterally, and the bony spike of the osteotomy was trimmed with a bone rongeur. A medial Y-V capsulorrhaphy was performed, and the skin was closed with interrupted nonabsorbable sutures.

Mitchell's osteotomy : (fig. 2) The capsule was incised medially in a Y fashion, and a typical Mitchell-type distal first metatarsal osteotomy using an oscillating saw was performed, after two perpendicular dorsal-to-plantar drill-holes were made. After 3 to 4 mm of bone was excised from the medial aspect of the distal fragment, the latter was displaced laterally and held *in situ* with a strong absorbable suture passing through the drill holes. The bony spike of the osteotomy was trimmed with a bone rongeur, and a medial Y-V capsulorrhaphy was performed. The skin was closed with interrupted nonabsorbable sutures.

In all cases, after skin closure and application of dressings a short plaster boot was applied for 2 weeks and heel-weight-bearing was allowed after leg elevation for 48 hours. Sutures were removed two weeks after surgery, and a below-knee walking plaster boot was

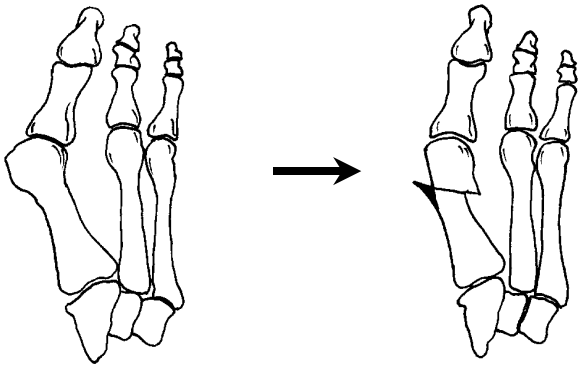

Fig. 1. — Wilson osteotomy

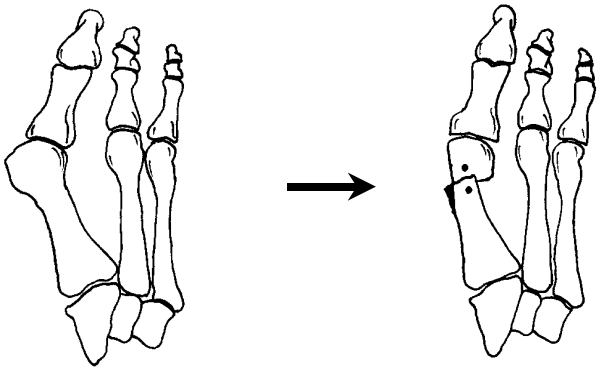

Fig. 2. — Mitchell osteotomy

Table II. — Symptom score

	Grade 1	Grade 2	Grade 3
Cosmetic appearance :	Happy	Slight reservation	Unhappy
Pain in first MTP joint :	None	Occasional	On normal activities
Metatarsalgia :	None	After > 3 h walking/standing	After < 3 h walking/standing
Function/Activities :	No restrictions	Slight restriction in daily activities	Severe restriction in daily activities
Shoewear :	Any	Slight restriction	Difficulty in finding/ only special shoes

applied for another 4 weeks. The plaster cast was removed 6 weeks postoperatively, and full weight bearing was encouraged immediately.

Patient review : All patients were reviewed by the same person (D.K.), and a specific questionnaire was given to them at the time of the clinical review in order to obtain a symptom score. We used the scoring system used by Broughton and Winson (3) after minor modifications (table II). The result was regarded as e*xcellent* when the patient achieved Grade 1 in all categories, *good* when the patient had no more than two Grade 2's and no Grade 3's, and *poor* in any other case. At the same time, the active and passive range of motion at the first metatarsophalangeal joint was examined, and the patient was checked for the presence of calluses under the metatarsal heads.

Statistical analysis : A Student's paired t-test was used to assess differences in the results of the two groups, while differences in the presence of calluses, metatarsalgia and the symptom score were assessed with the aid of a chi-square test. Significance was set at the 0.05 level.

RESULTS

Radiography : (table III) The average preoperative hallux valgus angle (HVA) and first intermetatarsal angle (IM1-2) in the Wilson group were 30.5° (19-44) and 14° (8-22), while the average postoperative HVA and IM 1-2 were 10.7° (1-25) and 9.0° (6-18) respectively. The correction achieved was 19.8° (4-35) for the HVA and 5.0° (0-11) for the IM 1-2. The average shortening of the first metatarsal (ΔL-1) produced after a Wilson osteotomy was 5.1 mm (0.3 mm-9.3 mm) and the average decrease in distance between the centers of the heads of the first and fifth metatarsals (ΔL 1-5) was 9.1 mm (0.3 mm-18 mm).

In the Mitchell group, the average preoperative hallux valgus angle (HVA) and first intermetatarsal

Table III. — Results

WILSON	MITCHELL
1.Radiography	
Hallux Valgus Angle (pre) : 30.5° (19-44) Intermetatarsal Angle1-2 (pre) : 14.0° (8-22) Hallux Valgus Angle (post) : 10.7° (1-25) Intermetatarsal Angle1-2 (post) : 9.0° (6-18) Correction of HVA :19.8° (4-35) Correction of IM1-2 : 5.0° (0-11) Shortening of first Met. : 5.1 mm (0.03-0.93) Shortening of first-fifth Met. distance : 9.1mm (0.3-18)	Hallux Valgus Angle (pre) : 32.5° (22-53) Intermetatarsal Angle1-2 (pre) :15.0° (9-24) Hallux Valgus Angle (post) : 14.7° (7-24) Intermetatarsal Angle1-2 (post) :10.9° (6-16) Correction of HVA :17.8° (8-39) Correction of IM1-2 : 4.2° (0-13) Shortening of first Met. : 4.9 mm (0.13-1.04) Shortening of first-fifth Met. distance : 8.7 mm (2-32)
2.Patient review	
Presence of Calluses : 32/73 (43.8%) Hospital Time : 3.8 days (1-7) Rehabilitation Time : 9.8 weeks (6-14) Metatarsalgia : 24/73 (32.9%) Passive arc : 57.4° Active arc : 44.0° Sympt. Score : Excellent 24 (32.9%) Good 33 (45.2%) Poor 16 (21.9%)	Presence of Calluses : 11/34 (32.4%) Hospital Time : 4.4 days (2-8) Rehabilitation Time : 9.4 weeks (7-15) Metatarsalgia : 4/34 (11.8%) Passive arc : 58.0° Active arc : 45.1° Sympt. Score : Excellent 15 (44.1%) Good 14 (41.2%) Poor 5 (14.7%)

angle (IM1-2) was 32.5° (22-53) and 15.0° (9-24), while the average postoperative HVA and IM 1-2 was 14.7° (7-24) and 10.9° (6-16), respectively. The correction achieved was 17.8°(8-39) for the HVA and 4.2° (0-13) for the IM 1-2. The average shortening of the first metatarsal (ΔL-1) produced after a Mitchell osteotomy was 4.9 mm (1.3 mm-10.4 mm), and the average decrease in distance between the centers of the heads of the first and fifth metatarsals (ΔL 1-5) was 8.7 mm (0.2 mm-32 mm).

No statistically significant differences were found between the HVA correction, the IM 1-2 correction, the ΔL-1 and the ΔL 1-5 of the two groups for $p \leq 0.05$.

Patient review and symptom score : In the Wilson group patients were hospitalized for a mean time of 3.8 days (range 1-7), and their rehabilitation time ranged from 6 to 14 weeks with an average of 9.8 weeks (7 to 12 weeks with an average of 9.9 weeks for patients over 55). The average passive and active range of movement achieved at the time of review was 57.4°(30-90) and 44.0°(20-75), respectively. In 24 cases, (32.9%) patients complained of postoperative metatarsalgia, while calluses were present under the second or third metatarsal head in 32 cases (43.8%) (table III). The symptomatic score was regarded as *excellent* in 24 cases (32.9%), g*ood* in 33 cases (45.2%) and p*oor* in 16 cases (21.9%), of which one was reoperated owing to inadequate correction (table IV).

In the Mitchell group patients were hospitalized for a mean time of 4.4 days (range 2-8), and their rehabilitation time ranged from 7 to 15 weeks with an average of 9.4 weeks (7 to 15 weeks with an average of 8.4 weeks for patients over 55). The average passive and active range of movement achieved at the time of review was 58.0°(30-80) and 45.1°(20-65), respectively. In only 4 cases, (11.8%) patients complained of postoperative metatarsalgia, while calluses were present under the second or third metatarsal head in 11 cases (32.4%) (table III). The symptom score was regarded as *excellent* in 15 cases (44.1%), *good* in 14 cases (41.2%) and *poor* in 5 cases (14.7%) of which one with central metatarsalgia was reoperated using Hellal's procedure (table IV).

Table IV. — Symptom score results

WILSON	Grade 1	Grade 2	Grade 3
Cosmetic appearance	64(22)	9(1)	-
Pain in first MTP joint	53(14)	17(7)	3(2)
Metatarsalgia	49(16)	17(4)	7(3)
Function/Activities	60(20)	12(3)	1(-)
Shoewear	44(8)	28(14)	1(1)
MITCHELL	Grade 1	Grade 2	Grade 3
Cosmetic appearance	30(13)	4(-)	-
Pain in first MTP joint	27(11)	6(2)	1(-)
Metatarsalgia	30(10)	2(2)	2(1)
Function/Activities	32(13)	2(-)	-
Shoewear	21(8)	12(4)	1(1)

* In brackets results for patients > 55 years old.

The rehabilitation time required in the > 55 age group, as well as the incidence of postoperative metatarsalgia, was significantly different in favor of the Mitchell group ($p \leq 0.05$).

Complications :(table V) There were no serious complications with the exception of a 47 year-old lady who underwent bilateral Wilson osteotomies and had deep venous thrombosis and a pulmonary embolism 14 days postoperatively. The V/Q-scan showed a solitary embolus, and she was treated successfully with heparin and warfarin.

Three feet in the Wilson group and two feet in the Mitchell group had a superficial wound infection successfully treated with oral antibiotics, while two feet from each group had transient paresthesias. The plaster was too tight and had to be split in five cases in the Wilson group and one case in the Mitchell group. We also had two cases of stress fractures of the second metatarsal, one case of delayed union, and one of early swelling, while three patients complained of a painful scar in the Wilson group.

The overall complication rate was higher in the Wilson group (18/73 -24.6%, as compared to 5/34 –14.7% in the Mitchell group), but the difference was not statistically significant.

DISCUSSION

Hallux valgus is a rather common condition, and a number of operative procedures have been described for its treatment. The goal of operative treatment is to offer relief of pain and permanent correction of the forefoot deformity, as well as a biomechanically functional forefoot (4). Quite a few comparative studies have been reported for the numerous surgical techniques used for the treatment of this rather common condition (3, 6, 11, 17, 20), but none directly comparing Wilson's oblique osteotomy to Mitchell's osteotomy, although they are both used by a large number of surgeons.

The average correction of hallux valgus angle and first intermetatarsal angle achieved with both techniques is similar to the ones reported in the literature. No statistically significant differences were found in the correction achieved by either of the two techniques used.

Many authors believe that Wilson's osteotomy tends to cause metatarsalgia and calluses because of a shift of the forefoot load distribution towards the lesser metatarsals, which in turn is attributed to shortening of the first metatarsal and dorsal

Table V. — Complications

WILSON	MITCHELL
18/73 (24.6%)	5/34 (14.7%)
Deep Vein Thrombosis - Pulm. embolism : 1	–
Transient paresthesias : 2	Transient paresthesias : 2
Early swelling : 1	–
Superficial infection – Oral antibiotics : 3	Superficial infection – Oral antibiotics : 2
Stress fracture second metatarsal : 2	–
Painful scar : 3	–
Delayed union : 1	–
Tight Plaster of Paris – Release : 5	Tight Plaster of Paris – Release : 1

displacement of the distal fragment (1, 8, 9, 10). Merkel *et al.* (13) concluded that more than 10 mm of shortening resulted in a higher degree of patient dissatisfaction and an increased frequency of metatarsalgia following a first metatarsal osteotomy. A number of authors however did not find any direct correlation between metatarsalgia and shortening of the first metatarsal (6, 11, 14, 15).

In our patients the main reason for dissatisfaction was the development of postoperative metatarsalgia involving usually the second and less frequently the third and fourth metatarsals. The incidence of metatarsalgia was higher and the shortening of the first metatarsal was slightly greater in the Wilson group (0.51 mm vs 0.49 mm), but the difference was statistically significant only as far as the incidence of postoperative metatarsalgia is concerned. Like Grace *et al*. (6), Klosok *et al.* (11), Mitchell *et al.* (14) and Pouliart *et al.* (15), we found no correlation between metatarsalgia and the amount of shortening of the first metatarsal. The fact that in the Mitchell group the first metatarsal shortening produced was more limited and the incidence of metatarsalgia significantly lower than in the Wilson group could probably be attributed to the fact that Mitchell's osteotomy has an increased inherent stability compared to Wilson's osteotomy. Lack of inherent stability could be a reason for more frequent failure to maintain the corrected position achieved at operation, thus causing excessive shortening and dorsal angulation of the distal fragment, which in turn is thought to be a reason for postoperative metatarsalgia (1, 8, 9). This could also be the reason why the time needed for the patient to go back to work or normal activities (rehabilitation time) was less in the Mitchell group. This difference however is statistically significant in favor of the Mitchell group only for patients over 55. Allen *et al*. (1), Keogh *et al.* (9), and Pouliart *et al*. (15) believe that some sort of internal fixation in the Wilson osteotomy might solve the problem of lack of inherent stability.

Using the scoring system developed by Broughton and Winson (3), which is a rather objective measure of the symptoms the patient is experiencing, we had an overall 78.1% good or excellent results in the Wilson group, as compared to an overall 85.3% good or excellent results in the Mitchell group. The difference was even more profound in the > 55 group, where we had an overall 70.6% good or excellent results in the Wilson group, while the good and excellent results in the Mitchell group amounted to 88.9%.

Klosok *et al.* (11) reported stiffness of the first MTPJ as the commonest cause of a poor result in their series, relating it to the extent of soft tissue dissection around the joint. Soft tissue dissection is thought to be responsible in proportion to its extent for both joint stiffness and avascular necrosis in distal metatarsal osteotomies (8). Stiffness of the first MTPJ was not a significant problem in our series, as demonstrated by the satisfactory range of motion of the first MTPJ in our patients, and no cases of avascular necrosis were recorded. This probably reflects the care we took in maintaining the soft tissue structures situated on the lateral aspect of the first metatarsal head. These structures are thought to be vital for the blood supply of the distal fragment in the immediate postoperative period (14).

Broughton and Winson (3) and Das De and Kamblen (5) believe that first metatarsal osteotomies and especially Mitchell's osteotomy should not be performed in patients over 55. Our results were rather satisfactory, supporting Wu's opinion that senior citizens with adequate pedal circulation and healthy MP joints do very well with Mitchell's osteotomy (19).

Both osteotomies gave very satisfactory results. The group of people who underwent Mitchell's osteotomy though, presented a greater rate of good or excellent results, a significantly lower rate of postoperative metatarsalgia and required less time to return to work or normal activities than the group of people who had Wilson's osteotomy. The difference was even more profound in people over 55. This probably reflects the fact that Mitchell's osteotomy offers increased stability in the osteotomy site as compared to Wilson's osteotomy.

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REFERENCES

1. Allen T. R., Gross M., Miller J., Lowe L. W., Hutton W. C. The assessment of adolescent hallux valgus before and after first metatarsal osteotomy. Int. Orthop., 1989, 5, 111-115.
2. Briggs T. W. R., Smith P., McAuliffe T. B. Mitchell's osteotomy using internal fixation and early mobilisation. J. Bone Joint Surg., 1992, 74-B, 137-139.
3. Broughton N. S., Winson I. G. Keller's arthroplasty and Mitchell osteotomy : A comparison with first metatarsal osteotomy of the long-term results for hallux valgus deformity in the younger female. Foot Ankle, 1988, 10, 201-205.
4. Coughlin M. J. Hallux Valgus .J. Bone Joint Surg., 1996, 78-A, 932-966.
5. Das De S., Kamblen D. L. Problems of distal metatarsal osteotomy for metatarsus primus varus in the middle aged patient. J. Bone Joint Surg., 1986, 68-B, 667.
6. Grace D., Hughes J., Klenerman L. A comparison of Wilson and Hohmann osteotomies in the treatment of hallux valgus. J. Bone Joint Surg., 1988, 70-B, 236-241.
7. Helal B. Surgery for adolescent hallux valgus. Clin. Orthop., 1981, 157, 50-63.
8. Helal B., Gupta S. K., Gojaseni P. Surgery for adolescent hallux valgus. Acta Orthop. Scand., 1974, 45, 271-295.
9. Keogh P., Jaiskander J. S., O'Connell R. J., White M. The modified Wilson osteotomy for hallux valgus. Clin. Orthop., 1990, 255, 264-267.
10. Klareskov B., Dalsgaard S., Gebuhr P. Wilson shaft osteotomy for hallux valgus. Acta Orthop. Scand., 1988, 59, 307-309.
11. Klosok J., Pring D., Jessop J., Maffuli N. Chevron or Wilson metatarsal osteotomy for hallux valgus. J. Bone Joint Surg., 1993, 75-B, 825-829.
12. Mann R., Coughlin M. Hallux Valgus-Etiology, anatomy, treatment and surgical considerations. Clin. Orthop., 1981, 157, 31-41.
13. Merkel K. D., Katoh Y., Johnson E. W. Jr, Chao E. Y. S. Mitchell osteotomy for hallux valgus : Long term follow-up and gait analysis. Foot Ankle, 1983, 3, 189-196.
14. Mitchell C. L., Fleming J. L., Allen R., Glenney C., Sanford G. A. Osteotomy-bunionectomy for hallux valgus. J. Bone Joint Surg., 1958, 40-A, 41-60.
15. Pouliart N., Haentjens P., Opdecam P. Clinical and radiographic evaluation of Wilson osteotomy for hallux valgus. Foot Ankle Int. 1996, 17, 388-394.
16. Smith R., Reynolds C. J., Stewart M. J. Hallux Valgus assessment : Report of research committee of American Orthopaedic Foot and Ankle Society. Foot Ankle, 1984, 5, 92-103.
17. Turnbull T., Grange W. A comparison of Keller's arthroplasty and distal metatarsal osteotomy in the treatment of adult hallux valgus. J. Bone Joint Surg., 1986, 68-B, 132-137.
18. Wilson J. N. Oblique displacement osteotomy for hallux valgus. J. Bone Joint Surg., 1963, 45-B, 552-556.
19. Wu K. Mitchell bunionectomy : An analysis of four hundred and thirty personal cases plus a review of the literature. J. Foot Surg., 1987, 26, 277-292.
20. Wu K. Mitchell's bunionectomy and Wu's bunionectomy : A comparison of 100 cases of each procedure. Orthopedics, 1990, 13, 1001-1007.
21. Wu K. Wu's bunionectomy : A clinical analysis of 150 personal cases. J. Foot Surg., 1992, 31, 288-297.
22. Zlotoff H. Shortening of the first metatarsal following osteotomy and its clinical significance. J. Am. Podiatry Assoc., 1977, 67, 412-426.

SAMENVATTING

D. KARATAGLIS, R. J. DINLEY, G. KAPETANOS. Vergelijkende studie van de Mitchell en Wilson osteotomie voor hallux valgus.

Vergelijkende studies tussen deze twee klassieke osteotomies voor hallux valgus zijn naar onze mening niet voorhanden.

Zes en vijftig patiënten (73 voeten) met een Wilson osteotomie en dertig patiënten (34 voeten) met een Mitchell osteotomie werden over een verloop van respectievelijk 33.7 en 38.9 maanden gevolgd. De resultaten waren vergelijkbaar wat betreft correctie van de hallux valgusmisvorming en de intermetatarsale hoek.

Maar de symptoomverlichting was groter in de Mitchell- dan in de Wilson-groep (11.8% tegen 32.9%) en de recuperatietijd (hervatten van dagelijkse bezigheden en werkhervatting) was bij de Mitchell groep duidelijk korter.

Het verschil in symptoomverlichting, frekwentie van postoperatieve metatarsalgia en revalidatieduur was bij ouderen dan 55 jaar nog duidelijker in het voordeel van de Mitchell osteotomie.

De lagere incidentie van postoperatieve metatarsalgie, de snellere recuperatie van de normale bezigheden en de daaruitvolgende grotere voldoening, kunnen vermoedelijk worden verklaard door de grotere stabiliteit van de Mitchell osteotomie.

RÉSUMÉ

D. KARATAGLIS, R. J. DINLEY, G. KAPETANOS. Etude comparative des ostéotomies de Mitchell et de Wilson dans le traitement de l'hallux valgus.

Bien que l'ostéotomie de Mitchell et l'ostéotomie de Wilson soient deux techniques classiques dans le traitement de l'hallux valgus, aucune étude n'a comparé directement leurs résultats.

Cinquante-six patients (73 pieds) qui ont subi une ostéotomie de Wilson et 30 patients (34 pieds) qui ont subi une ostéotomie de Mitchell ont été suivis pendant une période de 33,7 et 38,9 mois respectivement. Les résultats étaients comparables en ce qui concerne la correction de l'angle de l'hallux valgus et la correction de l'angle entre les deux premiers métatarsiens. Cependant, l'amélioration des symptômes a été plus importante dans le groupe Mitchell que dans le groupe Wilson (11,8% contre 32,9%) et les patients qui ont subi une ostéotomie de Mitchell ont mis moins de temps pour reprendre leur travail ou leurs activités quotidiennes. Les différences concernant l'amélioration des symptômes, l'incidence de la métatarsalgie postopératoire et la durée de la revalidation ont été encore plus nettement en faveur du groupe Mitchell chez les patients de plus de 55 ans.

La meilleure stabilité de l'ostéotomie de Mitchell par rapport à celle de Wilson pourrait expliquer l'incidence plus basse de métatarsalgies postopératoires et le retour plus rapide aux activités normales, avec par conséquent un degré de satisfaction plus élevée.