

MIS Procedure for Hallux Valgus Correction- Our Early Experience

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INTRODUCTION:

Hallux valgus is one of the most common pathologies of the lower extremity. With the goals of improving postoperative pain, reducing wound complications, and an accelerated post-operative rehabilitation protocol, minimally invasive surgery (MIS) of hallux valgus has recently increased in popularity. MIS hallux valgus correction uses small incisions to create windows through which a low speed-high torque burr can be used to osteotomize the metatarsal head. Current third-generation techniques incorporated screw fixation to chevron osteotomies to augment stability of the operative construct.

METHODS:

In this study we report the results of cases of done by the Foot and Ankle Unit, in our hospital. All cases were performed by a single surgeon during 2022- 2023 with a minimum of 6 months follow up. There are no significant exclusion criteria. All patients were done using the same instruments and implants except one. Patients were assessed clinically and radiologically at 6 weeks, 3 months, 6 months and 1 year if applicable. Data was tabulated and will be presented below.

RESULTS:

A total of 9 cases were performed on 8 patients. Median operating time was 50 minutes. There were 2 complications in our series. 1 case had superficial infection that was managed with dressing and a course of antibiotics which subsequently healed by the next review. 1 case had a loosened staple from the Akin Osteotomy, which was removed at 6 weeks. Bone was united.

Table 1: Demographic

Patients/ Feet	M: F	R: L	Age	Significant Comorbidities	
				DM	Rheumatoid Arthritis
8/9	0:8	3:6	34 (26-80)	2	2

Table 2: Pain scores - VAS

Timing	VAS Score
Preoperative	4.5 (2-6)
2 Weeks	2.8 (1-3)
6 Weeks	2.26 (1-3)
3 Months	1.3 (0-2)
6 Months	0
1 Year	0

Table 3: Pre and post operative outcomes

	Value
Surgery time	50 (45-65)
Complications	
2 Weeks	
Wound Infection	1
6 Weeks	
Wound Infection	0
Loosening of Implant	1
3 Months	0
6 Months	0
1 Year	0

DISCUSSIONS:

This study demonstrates that our clinical outcomes of MIS osteotomies. Even though MIS surgery has shown to be effective and safe, the technique is not without complications and comes with a steep learning curve. Bia et al showed that the most common complications include stiffness of the first metatarsophalangeal joint in 9.8%; infection (1.9% to 14.3%) and deformity recurrence in 7.8%. Complication rates did not differ between percutaneous techniques and open techniques. Our series show similar findings with studies comparing MIS with open surgery.

CONCLUSION:

MIS hallux valgus surgery is a viable procedure in the managing hallux valgus with similar complication rates compared to open but with improved pain and functional scores in the short to medium terms.

REFERENCES:

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