



Evaluation of Early Deep Vein Thrombosis By Lower Extremity Vein Ultrasound After High Tibial Osteotomy



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Introduction

- There are some reports on the incidence of DVT after medial open wedge high tibial osteotomy (OWHTO), but its prevention and treatment are controversial.
- Therefore, we aimed to examine the incidence of DVT in the early postoperative period of OWHTO performed at our hospital.



Materials & Methods

- The subjects were 48 patients (50 knees) who underwent OWHTO at our institution, with an average age of 59.5 years and an average BMI of 25.6 kg/m².
- No prophylactic anticoagulant was applied, and DVT examination with lower limb vein echogram was performed on average 3.9 days after surgery.

Table1. Patients Demographics

Number of Patients	48
Gender	
Female	25
Male	23
Mean age (yr)*	59.5 ± 8.9
Mean BMI (kg/m ²)*	25.6 ± 3.4



Materials & Methods

Surgery and Rehabilitation

- Firstly arthroscopic procedures
- Osteotomy with β -TCP and TomoFix Anatomical (DePuy Synthes)
- ROM exercise from POD1 and PWB gait exercise from POD7

Lists of Evaluation

- Incidence of DVT
- Site of DVT
- Comparison of clinical results between groups with and without DVT.



Results 1

Table 2. Incidence of DVT after HTO

DVT	23 (47.9%)
Surgical side	20 (41.6%)
Non-operative side	0
Bilateral	3 (6.3%)

* All cases were distal type DVTs including soleal veins.

Results 2

Table 3. Comparison between DVT+ and DVT-

	DVT+	DVT-	p value
Age (yo)	58.0	61.0	N.S.
BMI (kg/m²)	25.9	25.2	N.S.
Operation time (min)	121	115	N.S.
Preop JOA	77.4	76.4	N.S.
6M postop JOA	89.5	89.2	N.S.

- **There was no significant difference in patient background and clinical results between the two groups.**

Discussion

- The incidence of DVT after HTO has been reported to be **20-60%**, regardless of the use of anticoagulants.
- In this study, the incidence of DVT in the early postoperative period after HTO was **47.9%**, which was **almost the same as the previous studies**.
- There was no significant difference in JOA 6 months after HTO, suggesting that the presence or absence of **DVT after HTO does not affect clinical outcomes in the early stage**.
- This small cohort study would need more number of patients.



References

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Significance

- **The incidence of DVT in the early postoperative period after HTO is high and should be reconsidered as a postoperative complication.**
- **It was suggested that the presence or absence of DVT after HTO may not affect the early clinical outcome.**