



ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8-11

Patellar Height Changes After High Tibial Osteotomy: Open vs Close wedge

Robert Ferrer Rivero

Oriol Pujol, Gabriel Oliver, Josep Ferrer, Adrià Guerris

Hospital Sant Rafael / Hospital de Bellvitge

Spain



Faculty Disclosure Information

- Nothing to disclosure

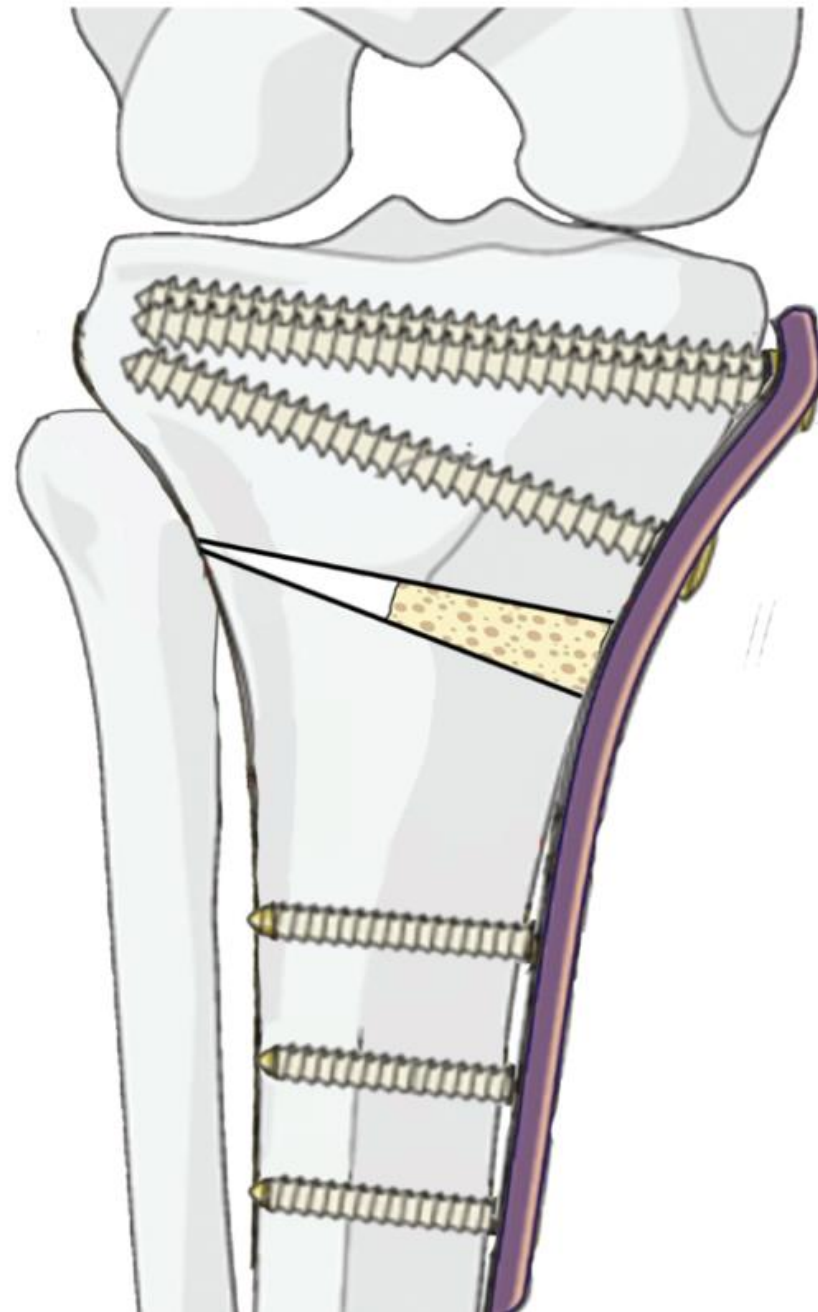


ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8–11

INTRODUCTION



OW-HTO

- ✓ **Functional Outcomes**
- ✓ **Pain**
- ✓ **Radiographic Alignment**

Duivenvoorden T, Brouwer RW, Baan A, et al. J Bone Joint Surg Am. 2014;96(17):1425-1432.
doi:10.2106/JBJS.M.00786



CW-HTO



ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8-11

Methods – Cohort Study



Study population

- Tibial valgus osteotomy between 2018 and 2021
- Varus knee
- Medial compartment pain



Main objective

- To quantifiy and compare:
HKA, MPTa, Tibial slope (TS), Caton-Deschamps (CD)



Secondary objectives

- Functional scales:
KOOS-12, Tegner Activity scale, pain (EVA), satisfaction (VAS)



ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8–11

TIBIAL OSTEOTOMY 2018-2021

RADIOLOGICAL ANALYSIS

FUNCTIONAL ANALYSIS

57

54

51

Exclusion (n=3)

- Sequela of tibial osteomyelitis (n=1)
 - Sequela of tibial fracture (n=1)
 - Sequela of poliomyelitis (n=1)
- Exclusion (n=3)

Exclusion (n=3)

- Lost to follow-up (n=2)
 - Deceased (n=1)
- Exclusion (n=3)

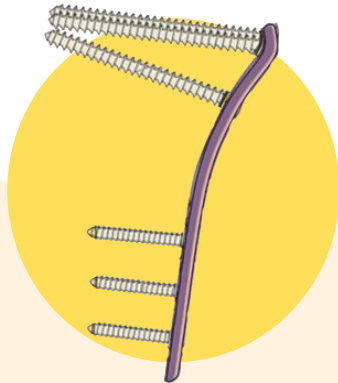


ISAKOS
CONGRESS
2025

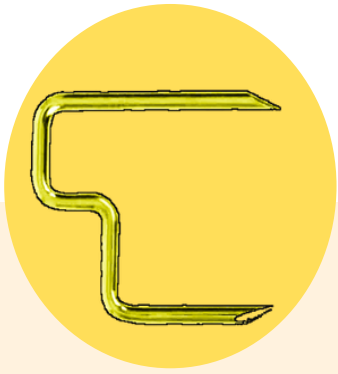


MUNICH
GERMANY
June 8-11

Results



OW-HTO

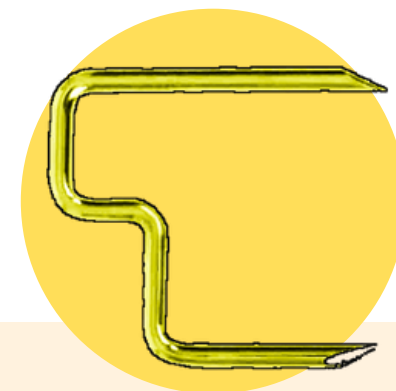
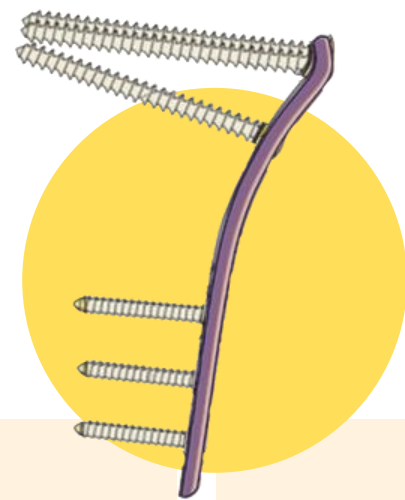


CW-HTO

			P-VALUE
Gender H/M	18/09	17/07	0,649
Age	52,22 (6,72)	54,56 (7,87)	0,254
Laterality (R/L)	16/11	14/10	0,812
Ahlbäck	2,04	2,12	0,677
Surgical time	99 +/- 22	52 +/- 19	<0,001
Admission days	2,67	2,44	0,48



Radiological analysis



					
PRE-OP	POST-OP	P-VALUE	PRE-OP	POST-OP	P-VALOR
171,22 (3,30)	181,12 (3,35)	0,001	170 (2,60)	179,55 (2,28)	0,001
84,89 (2,10)	92,96 (3,59)	0,001	84,12 (2,19)	92 (2,98)	0,001
9,96º (2,98)	11,44º (2,81)	<0,001	9,00º (3,91)	8,16º (3,47)	0,32
0,99 (0,14)	0,82 (0,14)	<0,001	0,94 (0,13)	0,97 (0,11)	0,18
1,48º (2,74)			-0,83º (2,12)		0,02
-0,17 (0,14)			0,04 (0,10)		<0,001

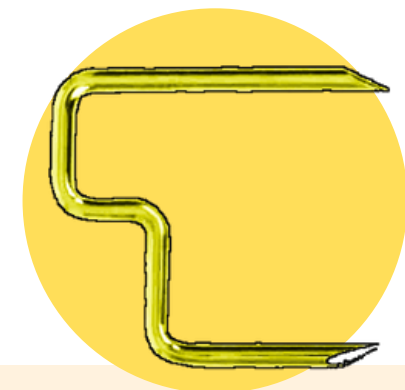
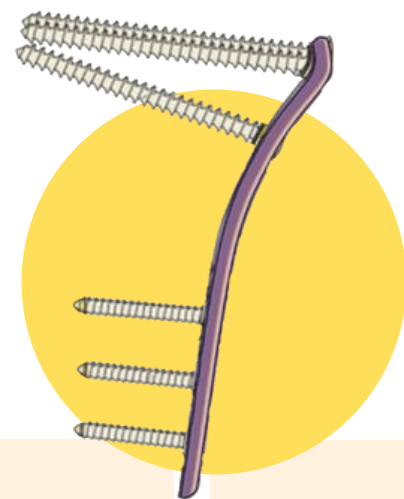


ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8-11

Functional analysis



	PRE-OP	POST-OP	P-VALUE	PRE-OP	POST-OP	P-VALUE
KOOS-12	33,55 (8,08)	7,63 (7,94)	0,99	35,91 (4,95)	7,62 (8,60)	0,258
Tegner	2,59 (1,73)	4,23 (1,82)	0,23	1,81 (1,66)	3,62 (1,43)	0,14
Pain	8,32 (1,64)	1,95 (2,03)	0,45	8,91 (1,14)	2,48 (2,44)	0,183
Δ KOOS-12		25,91 (9,05)			28,29 (8,08)	0,37
Δ Tegner		1,64 (2,13)			1,81 (2,40)	0,803
Δ Pain		6,36 (2,15)			6,43 (2,34)	0,925
Satisfaction		9,09 (1,51)			9,29 (1,31)	0,654



ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8-11

CONCLUSIONS



RADIOLOGICAL

- No differences in coronal alignment
- Increased tibial slope in OW-HTO (+1.48°)
- Increased patellar height in OW-HTO (Δ CDI 0.17)

FUNCTIONAL

- No differences in functionality



ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8–11



ISAKOS
CONGRESS
2025



MUNICH
GERMANY
June 8-11

