

Manejo de las fracturas de extremidad inferior en el paciente politraumatizado

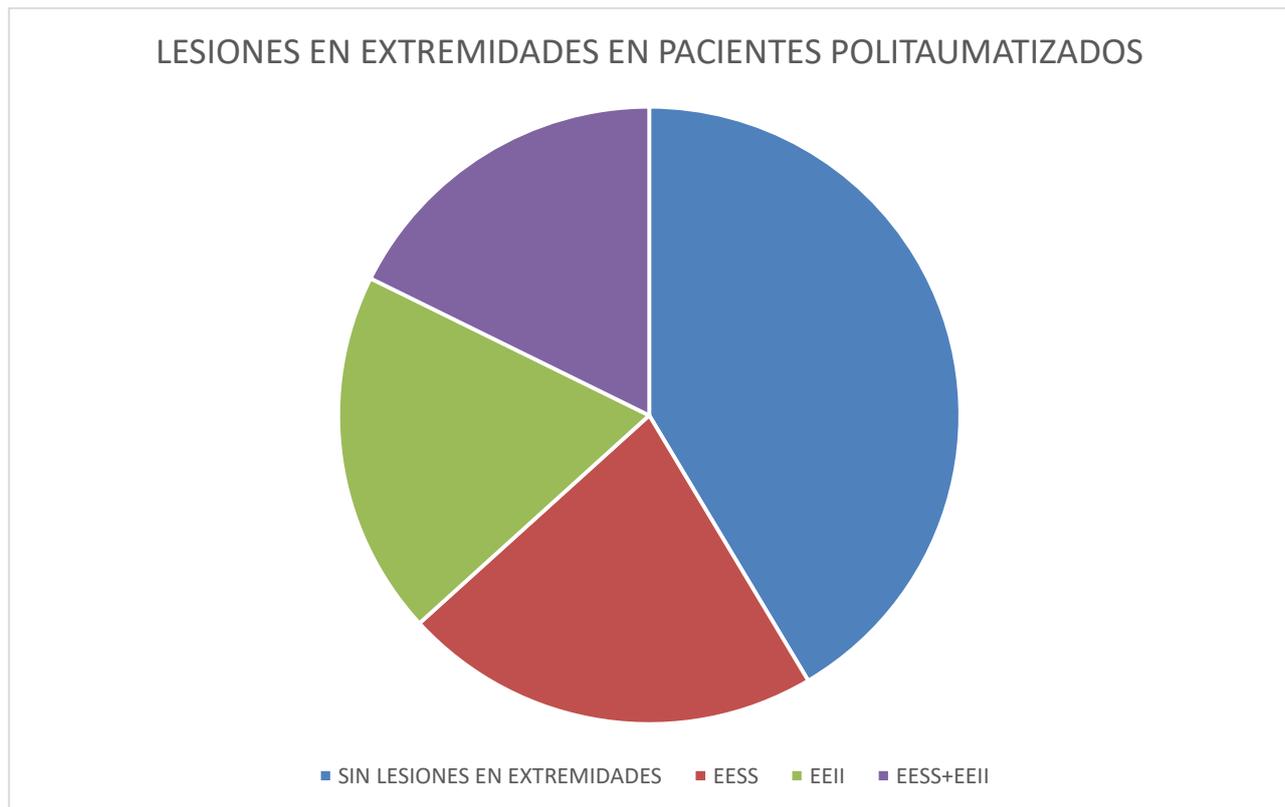


Tabla 1 Nawijn et. Al. Factors Associated with Secondary Amputation after Salvage Procedure as Index Operation for Limb-Threatening Upper Extremity Trauma

	Total, n = 49	Primary Replant or Salvage, n = 25 (51%)	Primary Amputation, n = 24 (49%)	p
Mean age ± SD, yr	45 ± 17	47 ± 18	44 ± 16	0.502 ^a
Sex, no. (%)				0.377 ^b
Male	32 (65)	18 (72)	14 (58)	
Female	17 (35)	7 (28)	10 (42)	
Diabetes mellitus,* no. (%)	6 (12.5)	3 (12.5)	3 (12.5)	1.000 ^b
Tobacco use reported in chart,† no. (%)	21 (50)	12 (52)	9 (47)	1.000 ^b
Manual labor as occupation,‡ no. (%)				0.909 ^b
Unemployed/retired	7 (17)	4 (17)	3 (17)	
Manual laborer	24 (59)	14 (61)	10 (55)	
No manual labor	10 (24)	5 (22)	5 (28)	
Dominant hand affected,§ no. (%)	20 (50)	9 (43)	11 (59)	0.527 ^b
Contralateral upper extremity affected, no. (%)	4 (8)	3 (12)	1 (4)	0.609 ^b
Mechanism of injury, no. (%)				0.082 ^b
Avulsion/abrasion	6 (12)	5 (20)	1 (4)	
Crush	8 (16)	2 (8)	6 (25)	
Machine cut	8 (16)	2 (8)	6 (25)	
Sharp	13 (27)	9 (36)	4 (17)	
Mixed/multimodal	14 (29)	7 (28)	7 (29)	
First presentation, no. (%)				0.769 ^b
Direct to treating hospital	31 (63)	15 (60)	16 (67)	
At outside hospital	18 (37)	10 (40)	8 (33)	
ISS, median (IQR)	14 (9–17)	13 (9–16)	16 (13–20)	0.019 ^c
AIS score for upper extremities, no. (%)				0.003 ^c
2	3 (6)	2 (8)	1 (4)	
3	28 (57)	19 (76)	9 (38)	
4	17 (35)	4 (16)	13 (54)	
5	1 (2)	0 (0)	1 (4)	
Most proximal level of upper extremity fractures, no. (%)				0.020 ^c
No fracture	3 (6)	3 (12)	0 (0)	
Midforearm or more distal	27 (55)	16 (64)	11 (46)	
Elbow or proximal forearm	4 (8)	1 (4)	3 (12)	
Upper arm	15 (31)	5 (20)	10 (42)	
Segmental fractures, no. (%)				0.200 ^c
No fracture	3 (6)	3 (12)	0 (0)	
One level	34 (69)	17 (68)	17 (71)	
Two levels	10 (20)	4 (16)	6 (25)	
Three levels	2 (4)	1 (4)	1 (4)	
Bone loss present,¶ no. (%)				0.058 ^c
No bone loss	20 (44)	13 (54)	7 (33)	
Bone missing or devascularized bone fragment, but still some contact between proximal and distal fragment	7 (16)	5 (21)	2 (10)	
Segmental bone loss	18 (40)	6 (25)	12 (57)	
Most proximal level of upper extremity soft-tissue injury, no. (%)				0.175 ^c
Midforearm or more distal	27 (55)	16 (64)	11 (46)	
Elbow or proximal forearm	6 (12)	3 (12)	3 (12)	
Upper arm	16 (33)	6 (24)	10 (42)	
Gustilo-Anderson classification, no. (%)				0.098 ^c
No open fracture	5 (10)	4 (16)	1 (4)	
Gustilo 3A	1 (2)	1 (4)	0 (0)	
Gustilo 3B	0 (0)	0 (0)	0 (0)	
Gustilo 3C	43 (88)	20 (80)	23 (96)	
Skin injury,** no. (%)				0.350 ^c
Laceration with skin edges that approximate	7 (15)	5 (20)	2 (9)	
Laceration with skin edges that do not approximate	23 (49)	12 (48)	11 (50)	
Laceration associated with extensive degloving	17 (36)	8 (32)	9 (41)	
Contamination,* no. (%)				1.000 ^c
None or minimal contamination	20 (42)	11 (44)	9 (39)	
Superficial contamination	2 (4)	0 (0)	2 (9)	
Contamination embedded in bone or deep soft- tissue or high-risk environmental conditions	26 (54)	14 (56)	12 (52)	

Tabla 2. Pape et al. Comparativa entre los parámetros que se empleaban en el año 2000 y los que se emplean la actualidad a evaluar al paciente en riesgo ⁽³⁾

Parameters to assess the patient at risk, comparison between 2000 and currently. Parameters to assess the borderline trauma patient - comparison between 2000 and now.

		2000	2020 unchanged parameters new parameters
Static parameters	Injury combination	Polytrauma ISS > 20 and additional thoracic trauma (AIS > 2)	Polytrauma ISS > 20 and AIS chest > 2 Thoracic Trauma Score (TTS) > grade 2 (> 3 rib fx, paO ₂ /FiO ₂ < 200, LuCo > 1 lobe, bilat.HT/HPT > unilat)
	Local injury chest	Bilateral lung contusion: 1 st plain film	Bilateral lung contusion: 1 st plain film or Chest CT: <ul style="list-style-type: none"> • unilateral bisegmental contusion • bilateral uni- or bisegmental contusion • flail chest
	Local injury trunk/extremities	Multiple long bone fractures + truncal injury AIS 2 or more	Multiple long bone fractures + truncal injury AIS 2 or more
	Truncal /	Polytrauma with abdominal /pelvic trauma RR, 90 mm Hg (Moore 3) and hem. shock	Polytrauma with abdominal/pelvic trauma RR, 90 mm Hg (Moore 3) and hemorrhagic shock
	Major Surgery for non-life saving conditions	Day 1 surgery (Early total care) or wait until 4-6 (window of opportunity)	Non life saving surgeries Flexible (day1,2,3) after reassessment according to individual patient physiology: Safe definitive surgery (SDS) and damage control (DCO)
	Duration of 1 st operative intervention	Presumed operation time > 6 hours	Presumed operation time > 6 hours intraoperative reassessment: <ul style="list-style-type: none"> • coagulopathy (ROTEM/FIBTEM) • lactate (< 2.0 - 2.5 mmol/L) • body temperature stable • requirement > 3 pRBC / hour
Dynamic parameters	Blood transfusion requirements	Massive transfusion (10 units RBCs per 24 hours)	Massive transfusion (10 units RBCs per 6 hours) initiates goal directed therapy *(massive transfusion protocols)
	Intra/ perioperative	PA-pressure increase during intramedullary nailing .6 mm Hg Initial mean PAP < 24 mm Hg	<ul style="list-style-type: none"> • ROTEM/FIBTEM • Lactate clearance < 2.5 mmol/l (24 hrs.)

LuCo = lung contusion.

Figura 1. Nauth, A et al. Nuevos sistemas de fresado que incorporan aspirado de médula ósea y puntas de fresa de menor diámetro⁽²¹⁾



Figura 2. Clasificación de Letts y porcentajes de cada tipo de fracturas presentes en la muestra del estudio *The Pediatric "Floating Knee" Injury A State-of-the-Art Multicenter Study*

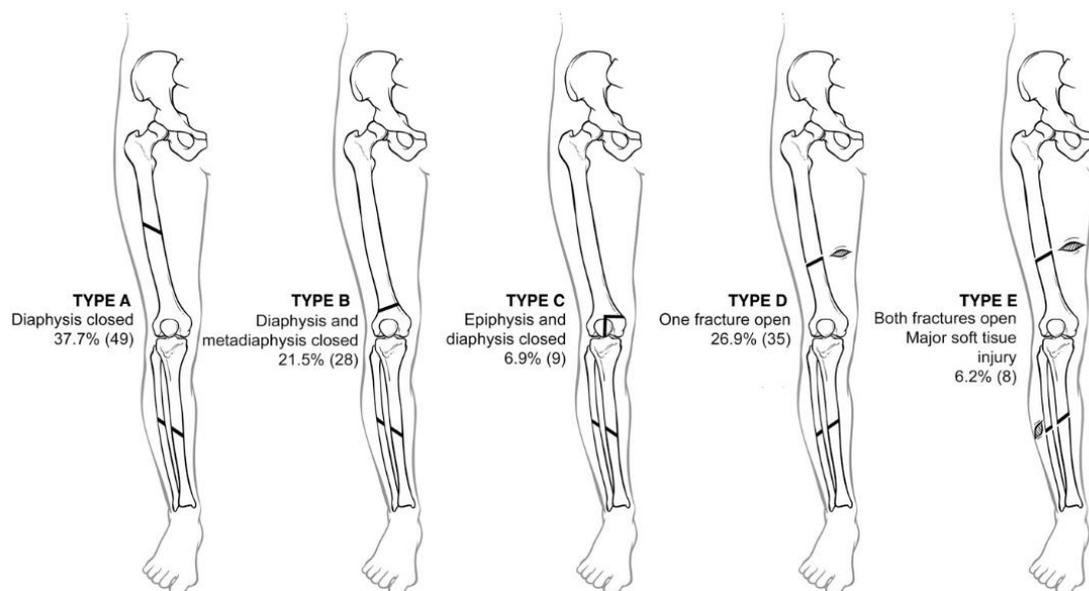


Figura 3. Fracaso de osteosíntesis de fémur distal en paciente anciana



