

Supplementary data

Table 3. Combined fractures with 1 fracture location in the tibia and 1 fracture location in the fibula

Tibia	41f-E	41f-M	Fibula 42f-D	43f-M	43f-E	Total
Infants and toddlers						
41t-E	–	–	–	–	–	–
41t-M	–	–	–	–	–	–
42t-D	–	–	2	1	–	–
43t-M	–	–	2	8	–	–
43t-E	–	–	–	–	–	–
						13
Pre-school children						
41t-E	–	–	–	–	–	–
41t-M	–	4	–	–	–	–
42t-D	–	–	10	1	–	–
43t-M	–	–	1	11	–	–
43t-E	–	–	–	–	–	–
						27
Schoolchildren						
41t-E	–	–	–	–	–	–
41t-M	–	–	–	–	–	–
42t-D	–	3	10	2	–	–
43t-M	–	1	–	1	–	–
43t-E	–	–	–	–	2	–
						19
Adolescents						
41t-E	–	–	–	–	–	–
41t-M	–	1	–	–	–	–
42t-D	–	1	18	7	–	–
43t-M	–	–	–	6	–	–
43t-E	–	–	1	16	6	–
						56
Total						115

D: diaphyseal; E: epiphyseal; f: fibula; M: metaphyseal; t: tibia.

Table 4. Distribution of child-specific fracture patterns in isolated epiphyseal fractures of the lower extremity for each age class

Bone	Sub-segment	Code	Morphology - fracture pattern									Total ^a
			/1 SH I	/2 SH II	/3 SH III	/4 SH IV	/5 Tillaux	/6 Tri-plane	/7 Lig. avulsion	/8 Flake	/9 Other	
Pre-school children												
Femur	Proximal	31-E	–	–	n.a.	n.a.	n.a.	n.a.	–	–	–	0
	Distal	33-E	–	1	–	–	n.a.	n.a.	–	–	–	1
Tibia	Proximal	41t-E	–	2	–	–	n.a.	n.a.	–	–	–	2
	Distal	43t-E	–	–	–	–	–	–	n.a.	n.a.	–	0
Fibula	Proximal	41f-E	–	–	n.a.	n.a.	n.a.	n.a.	–	n.a.	–	0
	Distal	43f-E	4	–	–	–	n.a.	n.a.	1	–	–	5
		Total (%)	4 (50)	3 (38)	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	8
Schoolchildren												
Femur	Proximal	31-E	–	–	n.a.	n.a.	n.a.	n.a.	–	–	–	0
	Distal	33-E	2	1	–	1	n.a.	n.a.	n.a.	–	–	4
Tibia	Proximal	41t-E	–	–	–	–	n.a.	n.a.	5	–	–	5
	Distal	43t-E	–	3	2	1	–	–	n.a.	n.a.	1	7
Fibula	Proximal	41f-E	–	–	n.a.	n.a.	n.a.	n.a.	–	n.a.	–	0
	Distal	43f-E	15	4	2	–	n.a.	n.a.	13	2	–	36
		Total (%)	17 (33)	8 (15)	4 (8)	2 (4)	0 (0)	0 (0)	18 (35)	2 (4)	1 (1)	52
Adolescents												
Femur	Proximal	31-E	1	–	n.a.	n.a.	n.a.	n.a.	–	–	–	1
	Distal	33-E	–	3	–	–	n.a.	n.a.	n.a.	1	–	4
Tibia	Proximal	41t-E	1	3	1	1	n.a.	n.a.	3	–	–	9
	Distal	43t-E	–	16	4	2	3	5	n.a.	n.a.	2	32
Fibula	Proximal	41f-E	–	–	n.a.	n.a.	n.a.	n.a.	–	n.a.	–	0
	Distal	43f-E	5	5	2	1	n.a.	n.a.	6	–	1	20
		Total (%)	7 (11)	27 (41)	7 (11)	4 (6)	3 (4)	5 (8)	9 (14)	1 (1)	3 (4)	66
Total (%)			28 (22)	38 (30)	11 (9)	6 (5)	3 (2)	5 (4)	28 (22)	3 (3)	4 (3)	126

E: epiphyseal; f: fibula; n.a.: not applicable; SH: Salter-Harris; t: tibia.

^a Infants and toddlers did not experience any epiphyseal fracture in the lower extremity.

Table 5. Distribution of child-specific fracture patterns in isolated metaphyseal fractures of the lower extremity for each age class

Bone	Sub-segment	Code	Morphology - fracture pattern				Total
			/2 Incomplete ^a	/3 Complete	/7 Lig. avulsion	/9 Other	
Infants and toddlers							
Femur	Proximal	31-M	1	–	–	–	1
	Distal	33-M	10	–	–	–	10
Tibia	Proximal	41t-M	8	2	–	–	10
	Distal	43t-M	9	–	n.a.	1	10
Fibula	Proximal	41f-M	–	–	n.a.	–	0
	Distal	43f-M	1	–	n.a.	–	1
Total (%)			29 (91)	2 (6)	0 (0)	1 (3)	32
Pre-school children							
Femur	Proximal	31-M	–	2	–	–	2
	Distal	33-M	2	1	–	1	4
Tibia	Proximal	41t-M	9	–	–	–	9
	Distal	43t-M	3	2	n.a.	1	6
Fibula	Proximal	41f-M	–	–	n.a.	–	0
	Distal	43f-M	1	–	n.a.	–	1
Total (%)			15 (68)	5 (23)	0 (0)	2 (10)	22
Schoolchildren							
Femur	Proximal	31-M	–	–	–	–	0
	Distal	33-M	4	3	–	–	7
Tibia	Proximal	41t-M	–	1	–	–	1
	Distal	43t-M	1	–	n.a.	–	1
Fibula	Proximal	41f-M	–	–	n.a.	–	0
	Distal	43f-M	–	–	n.a.	–	0
Total (%)			5 (56)	4 (44)	0 (0)	0 (0)	9
Adolescents							
Femur	Proximal	31-M	1	3	–	–	4
	Distal	33-M	1	2	–	–	3
Tibia	Proximal	41t-M	–	1	2	–	3
	Distal	43t-M	2	3	n.a.	–	5
Fibula	Proximal	41f-M	–	–	n.a.	–	0
	Distal	43f-M	–	1	n.a.	–	1
Total (%)			4 (25)	10 (63)	2 (13)	0 (0)	16
Total (%)			53 (67)	21 (27)	2 (3)	3 (4)	79

f: fibula; M: metaphyseal; n.a.: not applicable; t: tibia.

^a Torus/buckle, or greenstick.

Table 6. Distribution of child-specific fracture patterns in isolated diaphyseal fractures of the lower extremity for each age class

Bone	Code	Morphology - fracture pattern					Total
		/1	/2	/4	/5	/9	
		Bowing	Greenstick	Complete transverse < 30°	Complete oblique/spiral > 30°	Other	
Infants and toddlers							
Femur	32-D	n.a.	n.a.	1	9	2	12
Tibia	42t-D	1	–	–	1	15	17
Fibula	42f-D	1	2	–	–	–	3
	Total (%)	2 (6)	2 (6)	1 (3)	10 (31)	17 (53)	32
Pre-school children							
Femur	32-D	n.a.	n.a.	7	23	2	32
Tibia	42t-D	–	–	2	30	14	46
Fibula	42f-D	–	–	–	–	–	0
	Total (%)	0 (0)	0 (0)	9 (12)	53 (68)	16 (21)	78
Schoolchildren							
Femur	32-D	n.a.	n.a.	13	9	–	22
Tibia	42t-D	–	5	6	29	–	40
Fibula	42f-D	–	–	–	–	–	0
	Total (%)	0 (0)	5 (8)	19 (31)	38 (61)	0 (0)	62
Adolescents							
Femur	32-D	n.a.	n.a.	12	9	–	21
Tibia	42t-D	–	2	4	9	–	15
Fibula	42f-D	–	–	2	1	–	3
	Total (%)	0 (0)	2 (5)	18 (46)	19 (49)	0 (0)	39
	Total (%)	2 (1)	9 (4)	47 (22)	120 (57)	33 (16)	211

D: diaphyseal; f: fibula; n.a.: not applicable; t: tibia.

Table 7. Distribution of child-specific combined fracture patterns of the tibia and fibula at the same sub-segment level. Values are n (%)^a

Tibia		Fibula		Total	
Proximal, metaphyseal					
		/2	/3		
		Incomplete ^b	Complete		
/2	Incomplete ^b	2 (40)	–	–	
/3	Complete	1 (20)	2 (40)	–	
				5 (100)	
Diaphyseal					
		/1	/2	/4	/5
		Bowing	Greenstick	CT < 30°	CO/S > 30°
/1	Bowing	–	–	–	–
/2	Greenstick	3	1	1	0
/4	CT < 30°	3	–	5	2
/5	CO/S > 30°	4	–	4	17 (43)
					40 (100)
Distal, metaphyseal					
		/2	/3		
		Incomplete ^b	Complete		
/2	Incomplete ^b	15 (58)	–	–	
/3	Complete	2	9	–	
				26 (100)	
Distal, epiphyseal					
		/1	/4	/5	
		SH I	SH IV	Tillaux	
/1	SH I	1	–	–	
/4	SH IV	6 (75)	–	–	
/5	Tillaux (2-plane)	1	–	–	
				8 (100)	

CO/S: complete oblique/spiral; CT: complete transverse; SH: Salter-Harris.

^a Percentages are only provided if they were greater than 20%.

^b Torus/buckle, or greenstick.