Author	Year	Country	Study type	Sample size	Probe frequency (MHz)	Number with fractures	Fracture prevalence (%)	Fracture site	Blinding	Male/ female	Study Period	TP	FP	FN	TN	Age (year)	Reference standard	US operator	Training		Study setting	US equipment	US diagnostic criteria	sensitivity (%)	specificity (%)	time between X-ray and US	bedside US	
Banal et al 18	2009	France	Prospective	consecutive 37	7.5–13	12	32,4	Metatarsal 1	Double blinded	9/28	11/2006-12/2007	10	6	2	19	52.7±14.1	MRI	Experienced rheumatologists	No		Rheumatology department	An Esaote Technos MP system	Hypoechoic periosteal elevation, cortical disruption, and increased vascularity	83	76	The same day	NR	Stress fracture
Simanovsky et al 19	2009	Israel	Prospective	consecutive 41	5–12	11	26,8	Ankle 2	Single blinded	14/27	12/2003-11/2006	11	1	0	29	8,1	X-ray	A pediatric radiologist	No		Emergency department	HDI 5000 machine	Discontinuity of the echogenic cortical line, cortical depression, and periosteal elevation	100	96,6	NR	NR	Trauma
Canagasabey et al 26	2011	England	Prospective	Consecutive 110	NR	11	10	Foot or ankle 3	Double blinded	65/45	4/2009-7/2009	10	9	1	90	31.8±12.7	X-ray	An emergency department member	Yes	a 2-day course	Emergency department	NR	A significant fracture was defined as having a breadth greater than 3 mm	90,9	90,9	NR	NR	Trauma
Hedelin et al 27	2013	Sweden	Prospective	Consecutive 122	15	23	18,8	Ankle 4	Double blinded	58/64	10/2011-10/2012	23	14	0	85	42 (18-92)	X-ray	Orthopedic surgeons	Yes	a 30-minute session	Emergency department	An M-Turbo Sonosite system	NR	100	85,8	NR	Yes	Trauma
Ekinci et al 28	2013	Turkey	Prospective	consecutive 131	10	20	15,2	Foot or ankle 5	Single blinded	64/67	5/2011-6/2012	20	1	0	110	37.2±15.44	X-ray	An emergency physician	Yes	Yes	Emergency department	A Logiq Book XP device	NR	100	99,1	NR	NR	Injury
Atilla et al 29	2014	Turkey	Prospective	consecutive 246	10	76	30,9	Foot and/or ankle 6	Double blinded	105/141	4/2013-8/2013	69	9	10	242	37 (median age)	X-ray or CT	A sonographer	Yes	a 4-hour session	Emergency department	Mindray M5	Cortical disruption or stepping or axial deviation on the bone surface	87,3	96,4	NR	Yes	Sprain
Yesilaras et al 20	2014	Turkey	Prospective	consecutive 84	7.5-10	34	40,4	The fifth metatarsal 7	Double blinded	36/48	11/2011-3/2013	33	0	1	50	36±15	X-ray	An emergency physician	No		Emergency department	Mindray M5	Cortical disruption	97,1	100	NR	Yes	Injury
Kozaci et al 30	2017	Turkey	Prospective	consecutive 72	7,5	28	38,8	Metatarsal 8	NR	48/24	5/2015-7/2016	26	5	2	39	33±18	X-ray	Emergency physicians	Yes	1 hour theoretical and 1 hour practical	Emergency department	Esaote Firenze Italy	Cortical disruption	93	89	NR	Yes	Trauma
Ozturk et al 31	2018	Turkey	Prospective	consecutive 120	10	42	35	Malleolus 9	Double blinded	57/63	12/2014-6/2015	42	5	0	73	40.8±19.3	X-ray or CT	Emergency physicians	Yes	2 hours didactic training	Emergency department	Mindray M7	A cortical irregularity on one or more plane	100	93	NR	Yes	Blunt trauma
Ebrahimi et al 32	2019	Iran	Prospective	102 In this study, the samples were selected by nonrandom purposive sampling method	10	31	30,3	Metatarsal 10	Double blinded	58/44	1/2016-9/2016	30	11	1	60	35.14±14.32	X-ray	Emergency medicine specialist	NR		Emergency department	NR	Presence of cortical disruption or stepping or axial deviation of the bone surface	96,7	84,5	NR	Yes	Trauma
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