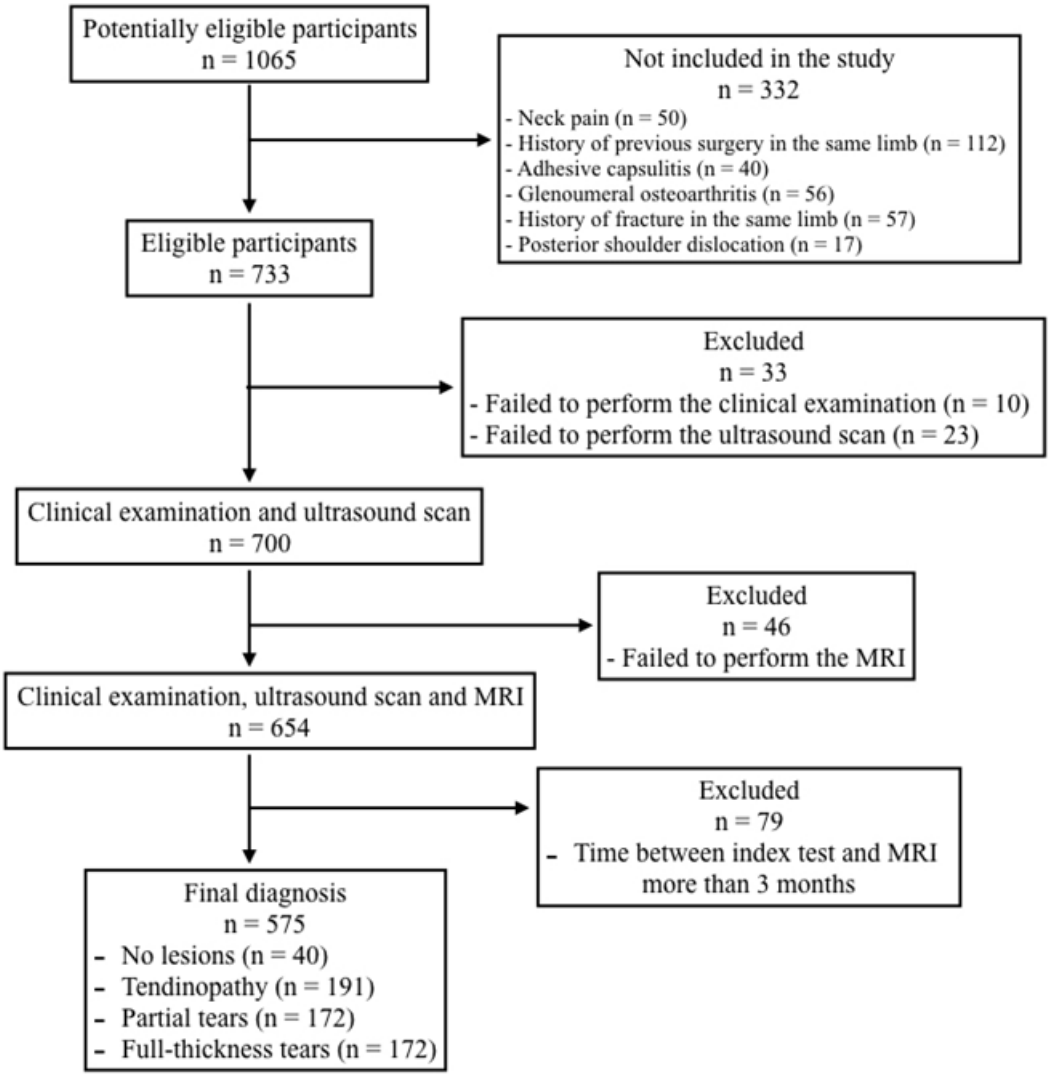
Participant flow



Baseline characteristics

Variable All participants (n = 733)	Statistic	
Age (years)	Mean = 50.5	SD = 12.7
Symptom duration (months)	Mean = 34.3	SD = 48.4
Gender	Male	52.2% (n = 383)
	Female	47.8% (n = 350)
Side involved	Right	62.7% (n = 460)
	Left	37.3% (n = 273)
Dominant arm	Dominant	63.7% (n = 467)
	Non dominant	36.3% (n = 266)
Bilateral pain	Yes	36.9% (n = 256)
	No	63.1% (n = 477)
History of previous trauma	Yes	21.3% (n = 156)
	No	78.7% (n = 577)

Outcome measures

Diagnostic values of all clinical tests in the supraspinatus tears (partial or full-thickness)

Clinical tests	SE [95% CI]	SP [95% CI]	AC [95% CI]	PPV	NPV	LR +	LR –
Painful arc test	78.1% [73.5% to 82.2%]	38.1% [32.1% to 44.5%]	62% [58% to 66%]	65.2%	54%	1.26	0.57
Jobe's test[1]	81.4% [76.9% to 85.1%]	37.7% [31.7% to 44%]	63.8% [67.7% to 59.9%]	66%	57.6%	1.30	0.49
Full can testt[1]	75% [70.2% to 79.3%]	45% [38.7% to 51.5%]	63% [59% to 66.9%]	67%	54.7%	1.36	0.55
Resisted lateral test[1]	68.6% [63.5% to 73.3%]	57.6% [51.1% to 63.8%]	64.2% [60.2% to 68.1%]	70.6%	55.2%	1.61	0.54
Patte's test[1]	43.6% [38.5% to 48.9%]	74.9% [68.9% to 80%]	56.2% [52.1% to 60.2%]	72.1%	47.1%	1.74	0.75
Cross body adduction test	51.9% [46.6% to 57.1%]	44.6% [38.3% to 51%]	48.9% [44.9% to 53%]	58.2%	38.4%	0.93	1.07
Drop arm test	16% [12.5% to 20.3%]	97.8% [95% to 99%]	48.9% [44.9% to 53%]	91.7%	44%	7.41	0.86
Neer's sign	63.3% [58% to 68.2%]	57.6% [51.1% to 63.8%]	60.1% [57% to 64.9%]	68.9%	51.3%	1.49	0.64
Speed's test	47.8% [42.6% to 53.1%]	70.6% [64.4% to 76.1%]	57% [52.9% to 61%]	70.7%	47.7%	1.62	0.74
Hawkins' test	64.7% [59.5% to 69.6%]	55.4% [48.9% to 61.7%]	60.1% [57% to 64.9%]	68.3%	51.4%	1.45	0.64
Yocum's test	72% [67% to 76.5%]	44.1% [37.9% to 50.6%]	60.8% [56.8% to 64.8%]	65.7%	51.5%	1.29	0.63
Champagne toast test	54.1% [46.6% to 61.4%]	68% [58.3% to 76.3%]	59.3% [53.4% to 65.1%]	74.2%	46.6%	1.69	0.67

[1]: pain or weakness; SE: sensitivity; SP: specificity; AC: accuracy; PPV: positive predictive value; NPV: negative predictive value; LR +: positive likelihood ratio; LR -: negative likelihood ratio; CI: confidence interval.

Outcome measures

Diagnostic values of the ultrasonography in the supraspinatus lesions

Ultrasonography	SE [95% CI]	SP [95% CI]	AC [95% CI]	PPV	NPV	LR +	LR –
Tendonosis	62.7% [55% to 69.1%]	61.3% [43.8% to 76.3%]	62.5% [55.6% to 69.3%]	89.4%	24%	1.62	0.61
Tears	45.2% [39.5% to 51.2%]	92.3% [87.9% to 95.2%]	65.6% [61.3% to 69.8%]	88.6%	56.1%	5.88	0.59
Partial tears	22.2% [16.2% to 29.7%]	92.7% [88.4% to 95.6%	63.8% [58.8% to 68.8%	68.1%	63.1%	3.07	0.83
Partial tears bursal side	30.3% [20.5% to 42.2%]	91.8% [87.6% to 94.7%]	78.2% [73.5% to 82.9%]	51.3%	82.2%	3.70	0.76
Partial tears articular side	16% [6.4% to 34.6%]	92.7% [88.4% to 95.5%]	84.5% [79.8% to 89.1%]	21%	90.1%	2.21	0.90
Partial tears intratendinous	15.1% [7.8% to 27%]	92.7% [88.4% to 95.5%]	76.9% [71.8% to 82%]	34.8%	81%	2.08	0.91
Full-thickness tears	61.6% [51.8% to 70.6%]	97.7% [95.4% to 98.9%]	89% [86% a 92.1%]	89.7%	88.9%	27.37	0.39

SE: sensitivity; SP: specificity; AC: accuracy; PPV: positive predictive value; NPV: negative predictive value; LR +: positive likelihood ratio; LR -: negative likelihood ratio; CI: confidence interval.

Adverse events

Ten participants failed to perform the clinical examination and 13 failed to perform the magnetic resonance imaging. All of these participants were followed up and submitted to the individualized treatment.