

Table 2. Overview of the results – Meetmethoden Glenoïdaal botverlies

Measurement						Outcome assessment*	Risk of bias
Method	CT	MRI	Difference	Correlation	Agreement		
Linear measurement methods							
Best-fit circle: (diameter bone loss / diameter best-fit circle) * 100							
Lander 2022	11.8	11.94	-	-	Bland-Altman plot: mean difference: 0.08, 95% LoA: -3.65, 3.80	+	High‡
Tian 2012	10.96± 9.00	10.48± 8.71	Paired t test not significant	Spearman rank coefficient (r)=0.912		+	Adequate‡
Chalmers 2020	23.5±9.6	20.5±8.6	Difference: 2.9 [0.8-5.1]; Paired t test: P<0.008	-	-	?	Doubtful‡
Sgroi 2022	15.02 (2.48-41.59)	13.38 (2.00-36.34)	Difference of medians: 1.64; Wilcoxon signed-rank test: not significant.	-	-	?	Doubtful‡
Feuerriegel 2023	20.3±8.0	T1 GRE: 20.4±7.6; Fracture: 20.6±7.9; UTE: 20.3±7.7	-	CT vs T1 GRE: Pearson's correlation: 0.94 CT vs Fracture: Pearson's correlation: 0.91 CT vs UTE: Pearson's correlation: 0.98	CT vs T1 GRE: Bland-Altman plot: mean: not reported; 95% LoA: -1.80,1.50 CT vs Fracture: Bland-Altman plot: mean: not reported; 95% LoA: -2.20, 1.75; CT vs UTE: Bland-Altman plot: mean: not reported; 95% LoA: -1.85,1.95	+ (T1GRE) + (Fracture) + (UTE)	Very good‡
Best-fit circle: (diameter bone loss / diameter of intact glenoid) * 100							
Kumar 2023	16.53% [SD: 11.47]	16.03% [SD: 11.06]	No statistical significant difference	ICC=0.998	-	+	Inadequate‡
Best-fit circle: (length of surface defect in circle / circle diameter)							

Sgroi 2022	0.75 (0.13-1.47)	0.76 (0.27-1.13)	Difference of medians: 0.01; Wilcoxon signed-rank test: not significant.	-	-	?	Doubtful#
<i>Best-fit circle: [(circle diameter – diameter of intact glenoid) / circle diameter] * 100</i>							
Stillwater 2017	15.6±5.8	15.2±5.5	Not statistically significant	-	-	?	High†
<i>Best-fit circle: (distance from center to anterior rim of defect / distance from center to posterior rim of glenoid) * 100</i>							
Sgroi 2022	15.48 (1.44-42.01)	12.88 (1.43-36.34)	Difference of medians: 2.60; Wilcoxon signed-rank test: not significant	-	-	?	Doubtful#
<i>Best-fit circle: [(circle diameter – diameter of intact glenoid) / circle diameter] * 100</i>							
Cui 2003	16.21±5.95	16.61±5.66	Paired t test not significant	-	Bland-Altman plot: mean: 0.29; 95% LoA: -1.54, 2.11	+	Very good#
Surface area methods							
<i>Best-fit circle: 1 – [(area of circle of unaffected glenoid – area of intact glenoid of affected side within circle) * 100]</i>							
Lansdown 2019	R1: 13±8; R2: 16±8; R2': 14±8	R1: 13±7; R2: 16±8; R2': 14±7		R1: ICC=0.94 (0.83-0.98) R2: ICC=0.99 (0.99-1.00) R2': ICC=0.99 (0.97-1.00)	R1: difference: 2.19±1.65, 95%LoA: -4.9, 5.9 R2: difference: 0.38±0.16, 95%LoA: -0.8, 0.9 R2': difference: 0.79±0.88, 95%LoA: -1.9, 2.6	– (R1) + (R2)	High†
<i>Best-fit circle: (area of articular surface of defect / best-fit circle area) * 100</i>							
Sgroi 2022	14.01 (0.87-38.25)	11.72 (2.45-37.97)	Difference of medians: 2.29; Wilcoxon signed-rank test: not significant	-	-	?	Doubtful#
<i>Best-fit circle: (in-circle area of glenoid defect / best-fit circle area) * 100</i>							

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Stecco 2013	4.34	4.38	Not statistically significant	-	-	?	Doubtful#
Chalmers 2020	18.3% (SD 7.5)	16.8% (SD 7.1)	Mean difference = 1.6%, 95%CI: 0.5-2.7, p=0.03	-	-	?	Doubtful#
<i>Best-fit circle: (best-fit circle area – surface area of glenoid socket within circle) / best-fit circle area * 100</i>							
Vopat 2018	Automated: 6.6% (range: 3.7-10.0) Manual: of 6.6% (range: 3.8-8.9)	Automated: 6.5% (range: 5.1-9.2) Manual: 6.5% (range: 4.6-9.5)	Both automated and manual methods: no statistically significant difference	-	-	?	High†
Glenoid Track							
<i>Best-fit circle: (0.83 * circle diameter) – diameter bone loss</i>							
Lander 2022	-	-	Reported that there were no differences between the imaging modalities	-	-	?	High†
Sgroi 2021	21.6 ± 0.5	21.5 ± 0.4	Paired t test: not significant.	-	-	?	Doubtful#
Cui 2023	18.02 ± 2.97	18.08 ± 2.98	Paired t test: not significant	-	Bland-Altman plot: mean: -0.02; 95% LoA: -1.22, 1.17	+	Very good#
Feuerrigel 2023	8.2 ± 7.1	T1 GRE: 8.1 ± 7.1 Fracture: 8.2 ± 7.1 UTE: 8.2 ± 7.1	-	-	CT vs T1 GRE: Bland-Altman plot: mean: not reported; 95% LoA: -1.35, 0.80; CT vs Fracture: Bland-Altman plot: mean: not reported; 95% LoA: -1.30, 1.00; CT vs UTE: Bland-Altman plot: mean: not reported; 95% LoA: -1.20, 0.90;	+	Very good#
Abbreviations: GBL, glenoid bone loss. 95% LoA: 95% limit of agreement. ICC, Intraclass correlation coefficient. R1: rater 1, R2: rater 2, R2': Rater 2 re-assessment.							

* Outcomes were rated as + (sufficient, when: correlation ≥ 0.70 , AUC ≥ 0.70 , Kappa ≥ 0.70), – (insufficient, when correlation < 0.70 , AUC < 0.70 , Kappa < 0.70), or ? (indeterminate, when correlation, AUC or Kappa not reported) based on the criteria for good measurement properties (Prinsen, 2018). Bland-Altman plots showing 95% limits of agreement within the intervals of clinical relevance (± 2 mm [glenoid track], $\pm 5\%$ [proportion bone loss] from 0 [i.e. no difference]) were also rated as + (sufficient) even if a correlation coefficient is absent.

†QUADAS-C assessment from Liu (2024) was used.

‡Assessed with COSMIN risk of bias tool.
