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Reproducibility and accuracy of visual estimation of polyp size in large colorectal polyps

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Table 1: Demographics

Patients (n = 40)	
Age (years)	70.6 ± 8.6
Sex	22 males (55.0 %)
Indication of primary colonoscopy	
National screening program	19 (47.5 %)
Symptoms	14 (35.0 %)
Surveillance	4 (10.0 %)
Miscellaneous	3 (7.5 %)
Interval between colonoscopies (days)	
	29.3 ± 32.4
Polyps (n = 45)	
Measurement technique 2nd colonoscopy	
2 cm snare	2 (5.3 %)
2.5 cm snare	26 (68.4 %)
3 cm snare	1 (2.6 %)
4 cm snare	7 (18.4 %)
ESD-instruments	1 (2.6 %)
Endoscope (while looping)	1 (2.6 %)
Not specified	7 (18.4 %)
EMR / ESD	38 (84.4 %) / 7 (15.6 %)
Polyp location	Primary colonoscopy Secondary colonoscopy
Caecum	8 (17.8 %) 7 (15.6 %)
Ascending colon	4 (8.9 %) 8 (17.8 %)
Hepatic flexure	2 (4.4 %) -
Transverse colon	3 (6.7 %) 4 (8.9 %)
Splenic flexure	4 (8.9 %) 2 (4.4 %)
Descending colon	1 (2.2 %) 2 (4.4 %)
Sigmoid colon	11 (24.4 %) 12 (26.7 %)
Rectum	10 (22.2 %) 10 (22.2 %)
Not specified	2 (4.4 %) -
Polyp morphology	Primary colonoscopy Secondary colonoscopy
Pedunculated	10 (22.2 %) 13 (28.8 %)
Sessile	22 (48.9 %) 25 (55.6 %)
Non-polypoid	9 (20.0 %) 7 (15.6 %)
Not specified	4 (8.9 %) -
Histology	
Hyperplastic	3 (6.7 %)
Sessile serrated adenoma	3 (6.7 %)
Tubular adenoma	29 (64.4 %)
Tubulovillous adenoma	8 (17.8 %)
Villous adenoma	-
Adenocarcinoma	2 (4.4 %)
Dysplasia (n = 40)	
None	1 (2.5 %)
Low grade dysplasia	36 (90.0 %)
High grade dysplasia	3 (7.5 %)

Figure 1: OC1 vs OC2 with limits of agreement

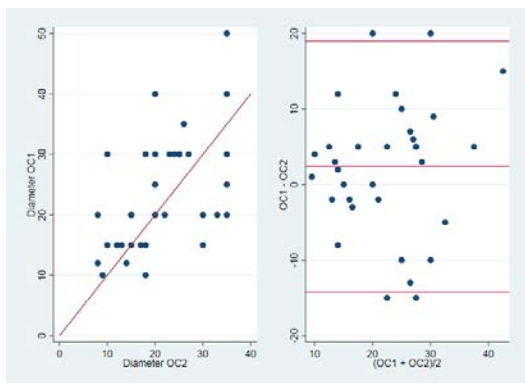


Figure 2: OC2 vs post-fixation with limits of agreement

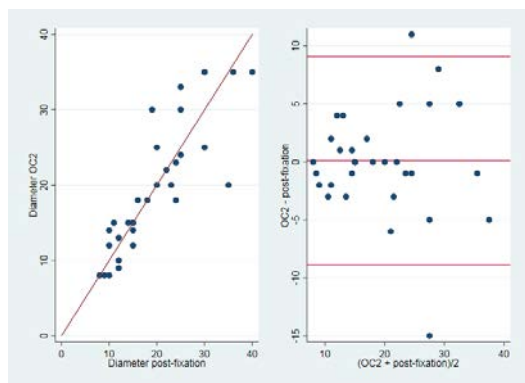


Table 2: 95% limits of agreement and average difference between size measurements

	95% Limits of agreement	Difference in mm (95% CI)	P-value
OC1 vs OC2 (n=37)	-14.2 - 19.0	2.4 (-0.4 – 5.2)	0.046
OC1 vs post-fixation (n=26)	-13.2 - 16.9	1.8 (-1.2 – 4.9)	0.12
OC2 vs post-fixation (n=33)	-8.9 - 9.1	0.1 (-1.5 – 1.8)	0.44
Pre-fixation vs post-fixation (n=33)	-5.6 - 7.6	1.0 (-0.2 – 2.2)	0.044

P-value of a one-sided paired t-test comparing the means of different size measurements.

Table 3: Agreement on ≥ 20 mm polyp sizes

	Observed agreement	Cohen's Kappa (95 % CI)
OC1 vs OC2 (n=37)	83.8 %	0.65 (0.60 – 0.70)
OC1 vs post-fixation (n=26)	81.5 %	0.63 (0.56 – 0.69)
OC2 vs post-fixation (n=33)	93.9 %	0.88 (0.76 – 0.94)
Pre-fixation vs post-fixation (n=33)	93.9 %	0.88 (0.83 – 0.93)