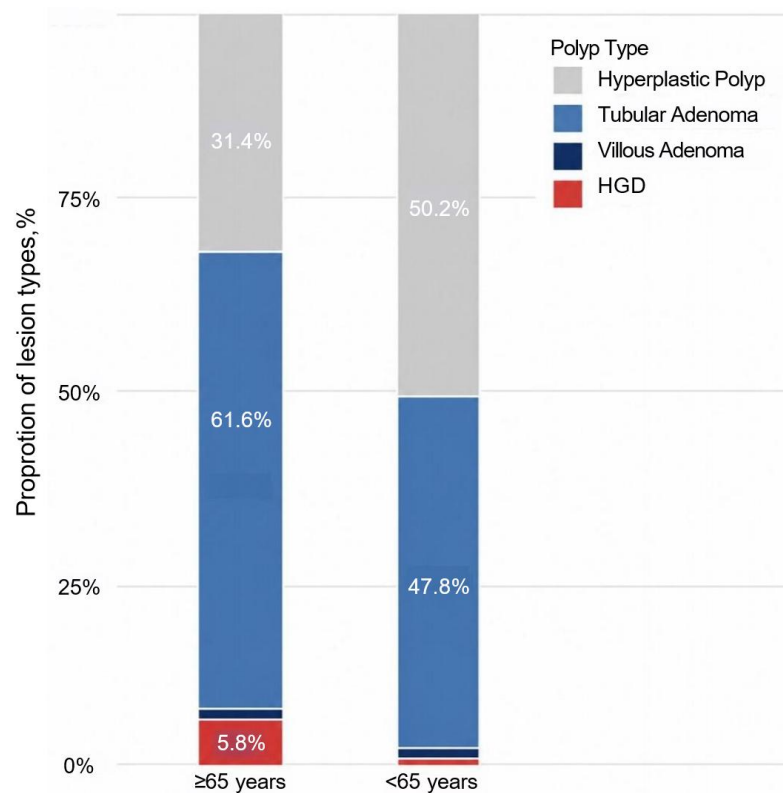


Supplementary material



Supplementary Figure 1 Distribution of colorectal lesion types according to age group.

Only patients with colorectal polyps were included in this analysis; patients without polyps were excluded. Percentages represent the distribution of lesion types among patients with colorectal polyps within each age group. Hyperplastic polyps include serrated lesions. HGD, high-grade dysplasia.

Supplementary Table 1 Baseline characteristics of patients included in the final analytic cohort versus those lost to follow-up, stratified by age group

Variable	Included , ≥65 years (n = 100)	Lost to follow- up, ≥65 years (n = 7)	P valu e (≥65 year s)	Included , <65 years (n = 561)	Lost to follow- up, <65 years (n = 53)	P value (<65 years)
Age, years, median (IQR)	69.0 (67.0– 72.0)	70.0 (68.0– 71.0)	0.747	48.0 (39.0– 56.0)	43.0 (38.0– 54.5)	0.256
Male sex, n (%)	51 (51.0)	3 (42.9)	0.677	310 (55.3)	26 (49.1)	0.386
BMI, median (IQR)	23.9 (21.1– 25.5)	24.4 (20.0– 25.5)	0.782	23.9 (21.6– 26.1)	23.7 (21.8– 26.4)	0.955
Hemorrhoid grade, n (%)			1.000			0.005
Grade I	5 (5.0)	0 (0.0)		24 (4.3)	3 (5.7)	
Grade II	74 (74.0)	6 (85.7)		445 (79.3)	32 (60.4)	
Grade III	21 (21.0)	1 (14.3)		92 (16.4)	18 (34.0)	
Presenting symptoms, n (%)			0.100			< 0.001
Bleeding	54 (54.0)	6 (85.7)		268 (47.8)	34 (64.2)	
Prolapse	11 (11.0)	0 (0.0)		34 (6.1)	8 (15.1)	
Bleeding and prolapse	4 (4.0)	1 (14.3)		36 (6.4)	6 (11.3)	
Other symptoms	31 (31.0)	0 (0.0)		223 (39.8)	5 (9.4)	
Comorbidities status, n (%)			0.079			0.885

Hypertension	21 (21.0)	1 (14.3)	81 (14.4)	7 (13.2)
Diabetes mellitus	10 (10.0)	0 (0.0)	19 (3.4)	1 (1.9)
Cardiovascular disease	4 (4.0)	0 (0.0)	5 (0.9)	1 (1.9)
Malignancy history	0 (0.0)	1 (14.3)	2 (0.4)	0 (0.0)
Multiple comorbidities	23 (23.0)	0 (0.0)	28 (5.0)	2 (3.8)

Abbreviations: BMI, body mass index; IQR, interquartile range. Data are presented as median (IQR) for continuous variables or n (%) for categorical variables, as appropriate. P values were calculated using the Mann–Whitney U test for continuous variables and the Pearson chi-square test, Fisher’s exact test, or the Fisher–Freeman–Halton exact test for categorical variables, as appropriate. Patients excluded because of incomplete key study data were not included in this comparison because complete baseline data required for a valid comparative analysis were unavailable. Patients excluded during initial eligibility screening are not presented in this table.

Supplementary Table 2 Adverse events within 30 days after endoscopic therapy, stratified by age group

Variable	≥65 years (n = 100)	<65 years (n = 561)	Total (n = 661)	P value	RD, %	95% CI
Any adverse event	12/100 (12.0%) [6.4–20.0]	65/561 (11.6%) [9.1–14.5]	77/661 (11.6%) [9.3–14.3]	0.867	0.4	–6.4 to 7.5

Any non-serious adverse event	12/100 (12.0%) [6.4–20.0]	65/561 (11.6%) [9.1–14.5]	77/661 (11.6%) [9.3–14.3]	0.867	0.4	–6.4 to 7.5
Pain	6/100 (6.0%) [2.2–12.6]	16/561 (2.9%) [1.6–4.6]	22/661 (3.3%) [2.1–5.0]	0.125	3.1	–1.2 to 8.8
Anal distention	2/100 (2.0%) [0.2–7.0]	24/561 (4.3%) [2.8–6.3]	26/661 (3.9%) [2.6–5.7]	0.405	–2.3	–6.1 to 1.3
Postprocedural bleeding	2/100 (2.0%) [0.2–7.0]	10/561 (1.8%) [0.9–3.3]	12/661 (1.8%) [0.9–3.1]	0.701	0.2	–3.0 to 3.7
Any serious adverse event	0/100 (0.0%) [0.0–3.6]	0/561 (0.0%) [0.0–0.7]	0/661 (0.0%) [0.0–0.6]	1.000	—	—
Delayed post-polypectomy bleeding	0/88 (0.0%) [0.0–4.1]	0/412 (0.0%) [0.0–0.9]	0/500 (0.0%) [0.0–0.7]	1.000	—	—
Perforation	0/100 (0.0%) [0.0–3.6]	0/561 (0.0%) [0.0–0.7]	0/661 (0.0%) [0.0–0.6]	1.000	—	—
Infection	0/100 (0.0%) [0.0–3.6]	0/561 (0.0%) [0.0–0.7]	0/661 (0.0%) [0.0–0.6]	1.000	—	—
Hospitalization/readmission	0/100 (0.0%) [0.0–3.6]	0/561 (0.0%) [0.0–0.7]	0/661 (0.0%) [0.0–0.6]	1.000	—	—

Transfusion	0/100 (0.0%) [0.0–3.6]	0/561 (0.0%) [0.0–0.7]	0/661 (0.0%) [0.0–0.6]	1.000	—	—
Death	0/100 (0.0%) [0.0–3.6]	0/561 (0.0%) [0.0–0.7]	0/661 (0.0%) [0.0–0.6]	1.000	—	—

Abbreviations: AE, adverse event; CI, confidence interval; RD, risk difference; SAE, serious adverse event. Data are presented as n/N (%) [95% CI]. P values were calculated using the Pearson chi-square test or Fisher's exact test, as appropriate. RDs and corresponding 95% CIs for adverse-event endpoints with observed events were calculated from raw 2 × 2 contingency tables using the Newcombe-score method, without multivariable adjustment. RDs were calculated as the proportion in the ≥65-year group minus that in the <65-year group. RD estimates were not calculated for zero-event serious adverse-event endpoints. AE and SAE classifications followed the ASGE lexicon for endoscopic adverse events. Delayed post-polypectomy bleeding was analyzed only among patients who underwent polypectomy.

Supplementary Table 3 Clinical outcomes in elderly patients stratified by anesthesia status

Variable	Intravenous anesthesia (n = 88)	No intravenous anesthesia (n = 12)	P value
Symptom improvement, n (%)	73 (83.0)	9 (75.0)	0.501
Postprocedural discomfort, n (%)			0.391
Pain	4 (4.5)	2 (16.7)	

Anal distention	1 (1.1)	1 (8.3)	
Bleeding	2 (2.3)	0 (0.0)	
Cost acceptance, n (%)	75 (85.2)	10 (83.3)	1.000
Patient satisfaction, n (%)			1.000
Satisfied	83 (94.3)	11 (91.7)	
Unsatisfied	5 (5.7)	1 (8.3)	
>1 treatment session, n (%)	2 (2.3)	0 (0.0)	1.000

Data are presented as n (%). P values were calculated using the Pearson chi-square test, Fisher's exact test, or the Fisher-Freeman-Halton exact test, as appropriate. This analysis was exploratory.

Supplementary Table 4 Clinical outcomes according to age group among patients receiving rubber band ligation (RBL)

Variable	≥65 years (n = 43)	<65 years (n = 194)	P value
Symptom improvement, n (%)	34 (79.1)	155 (79.9)	0.903
Postprocedural discomfort, n (%)			0.429
Pain	1 (2.3)	5 (2.6)	
Anal distention	1 (2.3)	11 (5.7)	
Bleeding	1 (2.3)	0 (0.0)	
Cost acceptance, n (%)	35 (81.4)	166 (85.6)	0.490
Patient satisfaction, n (%)			0.207
Satisfied	40 (93.0)	166 (85.6)	
Unsatisfied	3 (7.0)	28 (14.4)	
>1 treatment session, n (%)	1 (2.3)	7 (3.6)	1.000

Data are presented as n (%). P values were calculated using the Pearson chi-square test, Fisher's exact test, or Fisher-Freeman-Halton exact test, as appropriate. This analysis was exploratory.

Supplementary Table 5 Clinical outcomes according to age group among patients receiving endoscopic polidocanol foam sclerotherapy (EPFS)

Variable	≥65 years (n = 57)	<65 years (n = 367)	P value
Symptom improvement, n (%)	48 (84.2)	307 (83.7)	0.915
Postprocedural discomfort, n (%)			0.345
Pain	5 (8.8)	11 (3.0)	
Anal distention	1 (1.8)	13 (3.5)	
Bleeding	1 (1.8)	10 (2.7)	
Cost acceptance, n (%)	50 (87.7)	304 (82.8)	0.355
Patient satisfaction, n (%)			1.000
Satisfied	54 (94.7)	345 (94.0)	
Unsatisfied	3 (5.3)	22 (6.0)	
>1 treatment session, n (%)	1 (1.8)	14 (3.8)	1.000

Data are presented as n (%). P values were calculated using the Pearson chi-square test, Fisher's exact test, or Fisher-Freeman-Halton exact test, as appropriate. This analysis was exploratory.