Small Polyp (6-9mm) Resection: Adoption Of Optimal Technique Over Time

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BACKGROUND

- Complete and safe removal of pre-cancerous colorectal polyps during colonoscopy is critical for effective colorectal cancer prevention
- Cold snare technique has emerged as the optimal technique for removal of small (6-9mm) polyps to avoid incomplete resection (associated with cold biopsy removal) and bleeding/perforation complications (associated with hot snare removal)
- It is unclear if all endoscopists have uniformly adopted cold snare technique for small polyps

AIM

- Describe small polyp (6-9mm) resection technique from 2012 to 2019 at a single center

METHODS

- We included colonoscopies between 2012-2019 where a 6-9mm polyp was removed by seventeen gastroenterologists and four surgeons
- We retrospectively collected patient characteristics, procedure findings, polypectomy technique and pathology results
- Resection techniques over time are displayed overall, as well as stratified by different specialties & level of experience
- Monotonic trends over time were examined using the Mann-Kendall test

RESULTS

Technique	Specialty	2012 N=23	2013 N=14	2014 N=75	2015 N=119	2016 N=132	2017 N=205	2018 N=142	2019 N=63	p	tau
Cold Snare	Overall	30.4% (7)	78.6% (11)	60% (45)	63.9% (78)	92.5% (123)	93.7% (193)	94.4% (134)	96.8% (61)	0.004	0.86
	GI	45.5% (5)	78.6% (11)	58.9% (33)	72% (59)	97.1% (100)	95.7% (112)	95.1% (78)	100% (31)	0.035	0.64
	Surgery	16.7% (2)	NA	63.2% (12)	43.2% (16)	75.9% (22)	90.9% (80)	93.3% (56)	93.8% (30)	0.007	0.90
Cold Biopsy	Overall	43.5% (10)	0	9.3% (7)	7.4% (9)	1.5% (2)	0.5% (1)	1.4% (2)	0	0.081	-0.55
	GI	0	0	7.1% (4)	1.2% (1)	1% (1)	0	0	0	0.474	-0.27
	Surgery	83.3% (10)	NA	15.8% (3)	21.6% (8)	3.4% (1)	1.1% (1)	3.3% (2)	0	0.016	-0.81
Hot Snare	Overall	26.1% (6)	21.4% (3)	30.7% (23)	28.7% (35)	6% (8)	5.8% (12)	4.2% (6)	3.2% (2)	0.019	-0.71
	GI	54.5% (6)	21.4% (3)	33.9% (19)	26.8% (22)	1.9% (2)	4.3% (5)	4.9% (4)	0	0.035	-0.64
	Surgery	0	NA	21.1% (4)	35.1% (13)	20.7% (6)	8% (7)	3.3% (2)	6.2% (2)	0.548	-0.24

Table: Number and proportion of 6-9mm polyps removed by cold snare, cold biopsy and hot snare, stratified by endoscopist specialty and by year

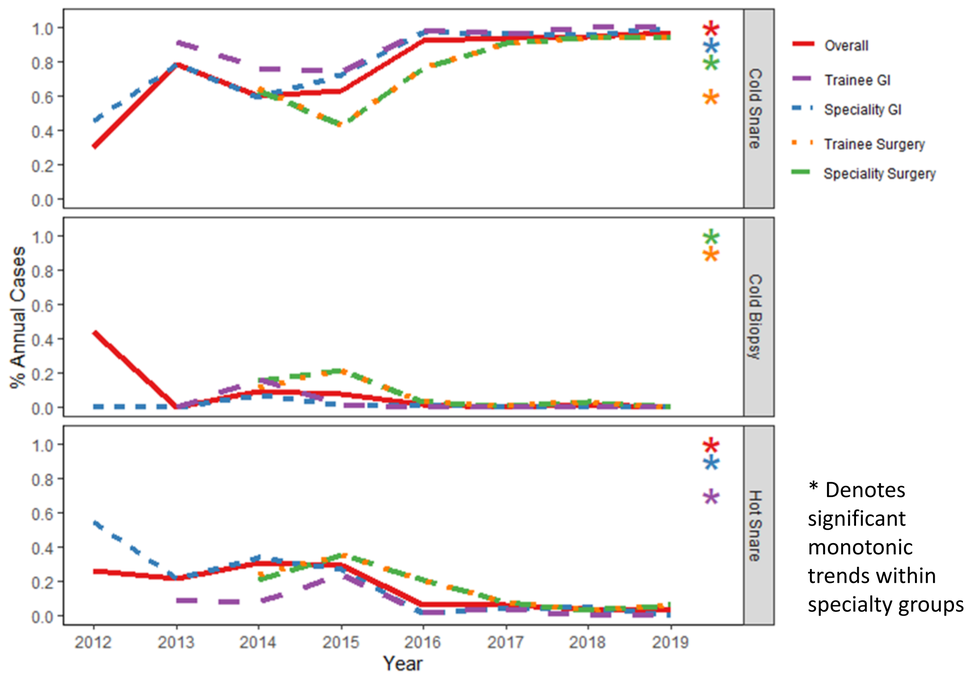

Figure: Trends in small polyps removed using different resection techniques over time

* Denotes significant monotonic trends within specialty groups

- Although both gastroenterologists & surgeons had improvement in adoption of optimal technique, gastroenterologists had a higher rate of optimal technique (100%) compared to surgeons (94%)
- Surgeons were delayed in their adoption of optimal technique compared to gastroenterologists
- Both gastroenterologists & surgeons reduced their usage of cold biopsy & hot snare for small polypectomy
- No complications were reported for any of the procedures in this study

CONCLUSIONS

- There was significant increase in the use of cold snare polypectomy for small polyps in this group of surgeons and gastroenterologists
- Gastroenterologists appeared to adopt optimal practice earlier and have a longer standing zero-tolerance use of cold biopsy forceps for these polyps compared to surgeons
- These results emphasize the importance of cross-specialty continuing education and quality assurance