

Minimally Invasive Pouch Surgery Predisposes to Intra- abdominal Desmoid Tumor Formation in Patients with Familial Adenomatous Polyposis

**James Church, Jon Vogel, Lisa LaGuardia,
Kim Bova, Carol Burke.**

**Jagelman Registries,
Cleveland Clinic Foundation, Cleveland,
Ohio, USA**

Intra-abdominal desmoid tumors occur in 12 to 15% of patients with FAP



Surgical trauma is a precipitating factor, as 80% of desmoids develop after abdominal surgery



Minimally invasive surgery offers the advantages of less pain, reduced hospital stay, and makes surgery a less scary proposition

Hypothesis

Minimally invasive surgery reduces the rate of intra-abdominal desmoid tumor formation after index prophylactic surgery for FAP

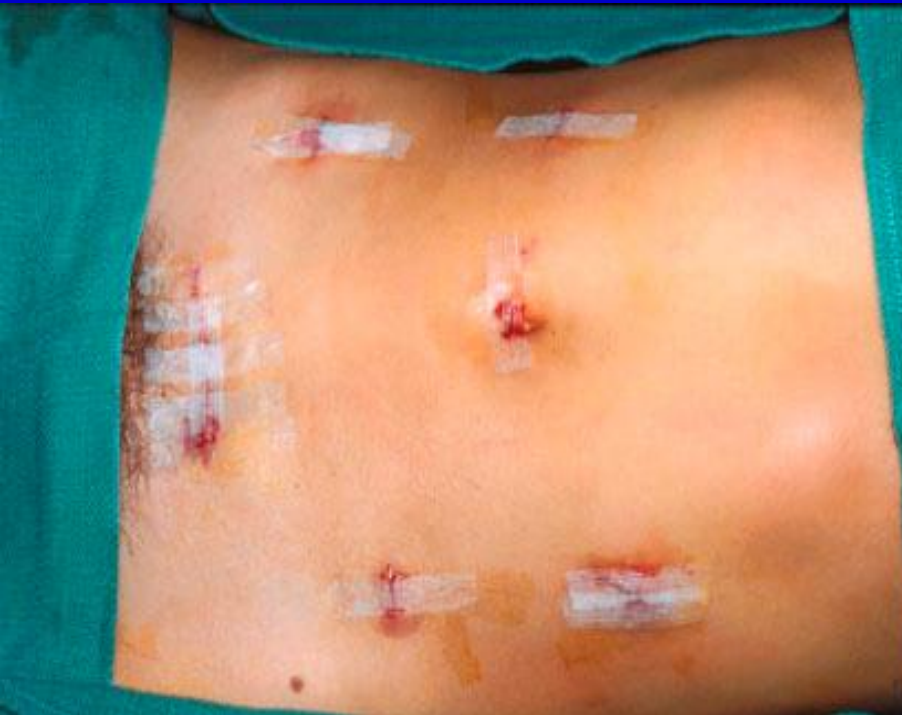
Methods

- **Retrospective study**
- **All FAP patients undergoing prophylactic colectomy or proctocolectomy, 1992 to 2001**
- **Exclude those with no follow-up, with desmoid at index operation**
- **Compare Conventional IRA vs MI IRA
Conventional IPAA with MI IPAA**

Minimally Invasive Surgery

Laparoscopically
Assisted

Not Laparoscopically
assisted



Patients

123 patients: 6 with desmoids at index surgery

27 without adequate follow-up

- **90 Patients**
- **38 men, 52 women**
- **45 IRA, 45 IPAA**
- **12 developed desmoids (13.3%)**

Demographic Results

Surgery	n	% Men	Age (yrs)	Follow-up (mths)
IRA	19	26	32.5	71.5
MI IRA	26	36	20.1	49.6
IPAA	32	59	30.7	34.6
MI IPAA	13	38	17.5	34.2

Polyposis Severity

Mean Polyp Count

	Colon	Rectum
IRA	451	17
MI IRA	485	8
IPAA	1183	46
MI IPAA	2864	44

Occurrence of Desmoids

Surgery	n	Desmoids		p*
IRA	19	3	15.8%	ns
MI IRA	26	1	3.8%	
Total IRA	45	4	8.9%	
IPAA	32	2	6.3%	<0.05
MI IPAA	13	6	46.2%	
Total IPAA	45	8	17.8%	

* Fisher's exact test

Occurrence of Desmoids

Surgery	n	Desmoids	p
IRA	19	3	15.8%
MI IRA	26	1	3.8%
IPAA	32	2	6.3%
Lap-Assist IPAA	10	4	40.0%
MI IPAA	3	2	66.7%

Fisher's exact test

Gender of Patients with Desmoids

	Men	Women
Post IRA Desmoids	0/14	3/31
Post IPAA Desmoids	6/24	2/21

Why?

Desmoids:

**often in small bowel mesentery, rarely in colonic mesentery
more common after IPAA pouch despite likely genotype
less manipulation of bowel with MI surgery
men have tighter mesentery**



Tension on small bowel mesentery

Conclusions

Results suggest that:

MI IRA may protect against desmoid formation

MI IPAA likely to cause desmoids, especially in men

Need confirmation before suggesting change of practice



