CAPTAIN : Cessation vs no cessation of Acetylsalicylic acid Preoperatively in laparoscopic Totally extraperitoneal inguinal hernia repair (an RCT)

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INTRODUCTION

- The incidence of inguinal hernias requiring routine surgical repair continues to rise amongst the ageing population worldwide.
- Cerebrovascular and cardiac comorbidities requiring utilisation of regular antithrombotic therapies remains prevalent in this population.
- Currently no consensus exists on perioperative management of antiplatelet therapy in patients who undergo an otherwise low surgical risk elective laparoscopic hernia surgery.

AIM

The aim of this study is, therefore, to investigate the safety of withdrawing aspirin preoperatively versus non withdrawal of aspirin preoperatively in patients undergoing laparoscopic inguinal hernia repair.

METHODS

- Prospective, multicentre, randomized controlled trial
- Duration: April 2016 to June 2024
- Study population: 100 patients undergoing laparoscopic TEP (Total Extra-Peritoneal) inguinal hernia repair under general anaesthesia
- Patients who are unfit for general anaesthesia, have obstructed / strangulated hernias will be excluded from this study.
- Randomized into 2 groups by coin toss method: preoperative aspirin cessation and no preoperative aspirin cessation
- Standardised surgical lap TEP technique, performed by principal surgeons of the study
- Follow-up up to 6months (1 week, 2 weeks, 1 month, 3 months post op)
- Data collected on 2o outcomes: bleeding, thromboembolic complications, wound infections, hematoma/seroma formation, length of hospital stay and recurrence

METHODS (CONTD.)

Patient Demographic Variables

			Preoperative acetylsalicylic acid continued (N=45)	Preoperative acetylsalicylic acid cessation (N= 50)	P value
Mean age in years (SD)			66.7 (10.4)	70.2 (8.4)	0.072
Bone Mass Index (SD)			23.8 (3.5)	24.1 (4.9)	0.692
Gender	Female		2 (4.5%)	0 (0%)	0.134
	Male		43 (95.5%)	50 (100%)	
ASA score	I		0 (0%)	0 (0%)	0.068
	II		32 (71.1%)	28 (56%)	
	III		13 (28.9%)	21 (42%)	
	IV		0 (0%)	1 (2%)	
Etiology of inguinal hernia	Primary		40 (88.9%)	46 (92%)	0.609
	Recurrent		5 (11.1%)	4 (8%)	
Type of inguinal hernia	Unilateral	Left	9 (20%)	6 (12%)	0.606
		Right	2 (4.5%)	4 (8%)	
	Bilateral		34 (75.5%)	40 (80%)	

Comparison of Operative Findings

		Preoperative acetylsalicylic acid continued (N=45)	Preoperative acetylsalicylic acid cessation (N= 50)	P value
Length of hospital stay in days (SD)		0.7 (0.6)	0.8 (0.6)	0.378
Postoperative DVT/ PE	Yes	0 (0%)	0 (0%)	NA
	No	45 (100%)	50 (100%)	
Postoperative stroke	Yes	0 (0%)	0 (0%)	NA
	No	45 (100%)	50 (100%)	
Postoperative seroma	Yes	13 (28.9%)	13 (26%)	0.755
	No	32 (71.1%)	37 (74%)	
Postoperative hematoma	Yes	15 (33.4%)	9 (18%)	0.020
	No	30 (66.6%)	41 (82%)	
Postoperative hernia recurrence in 30 days	Yes	0 (0%)	0 (0%)	NA
	No	45 (100%)	50 (100%)	
Postoperative chronic pain in 30 days	Yes	1 (2.2%)	1 (2%)	0.940
	No	44 (97.8%)	49 (98%)	
Postoperative readmission within 30 days	Yes	0 (0%)	0 (0%)	NA
	No	45 (100%)	50 (100%)	
Length of follow-up in days (SD)		94.2 (89.4)	93.8 (76.7)	0.980

METHODS (CONTD.)

Comparison of Outcome Variables

		Preoperative acetylsalicylic acid continued (N=45)	Preoperative acetylsalicylic acid cessation (N= 50)	P value
Length of hospital stay in days (SD)		0.7 (0.6)	0.8 (0.6)	0.378
Postoperative DVT/ PE	Yes	0 (0%)	0 (0%)	NA
	No	45 (100%)	50 (100%)	
Postoperative stroke	Yes	0 (0%)	0 (0%)	NA
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Postoperative seroma	Yes	13 (28.9%)	13 (26%)	0.755
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RESULTS

- Statistically significant post-operative hematoma formation in aspirin group but size of bruising wasn't clinically significant and all were managed conservatively.
- Nil recurrence, 30 day readmissions or mortalities encountered in either group

CONCLUSION

This study found that preoperative continuance of aspirin is safe in select patients undergoing laparoscopic inguinal hernia repair without an increase in clinically significant complications