

# 6 year Retrospective study: Comparison of bariatric surgery outcomes; Single Anastomosis Duodeno-ileostomy (SADI) vs Sleeve Duo-jejunosotomy bypass (SDJB) vs Sleeve Gastrectomy (SG)

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# Disclosures (JF)

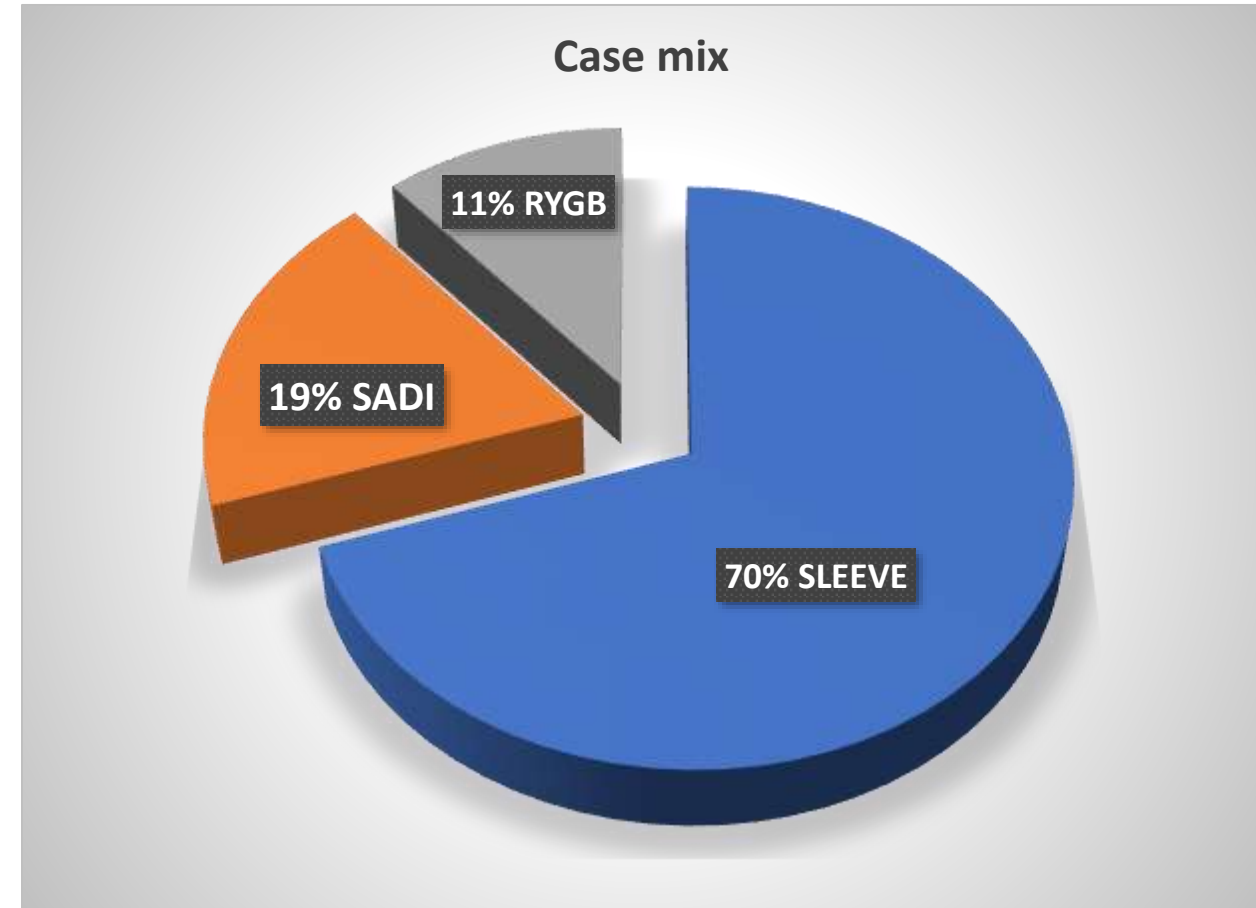
## Medtronic

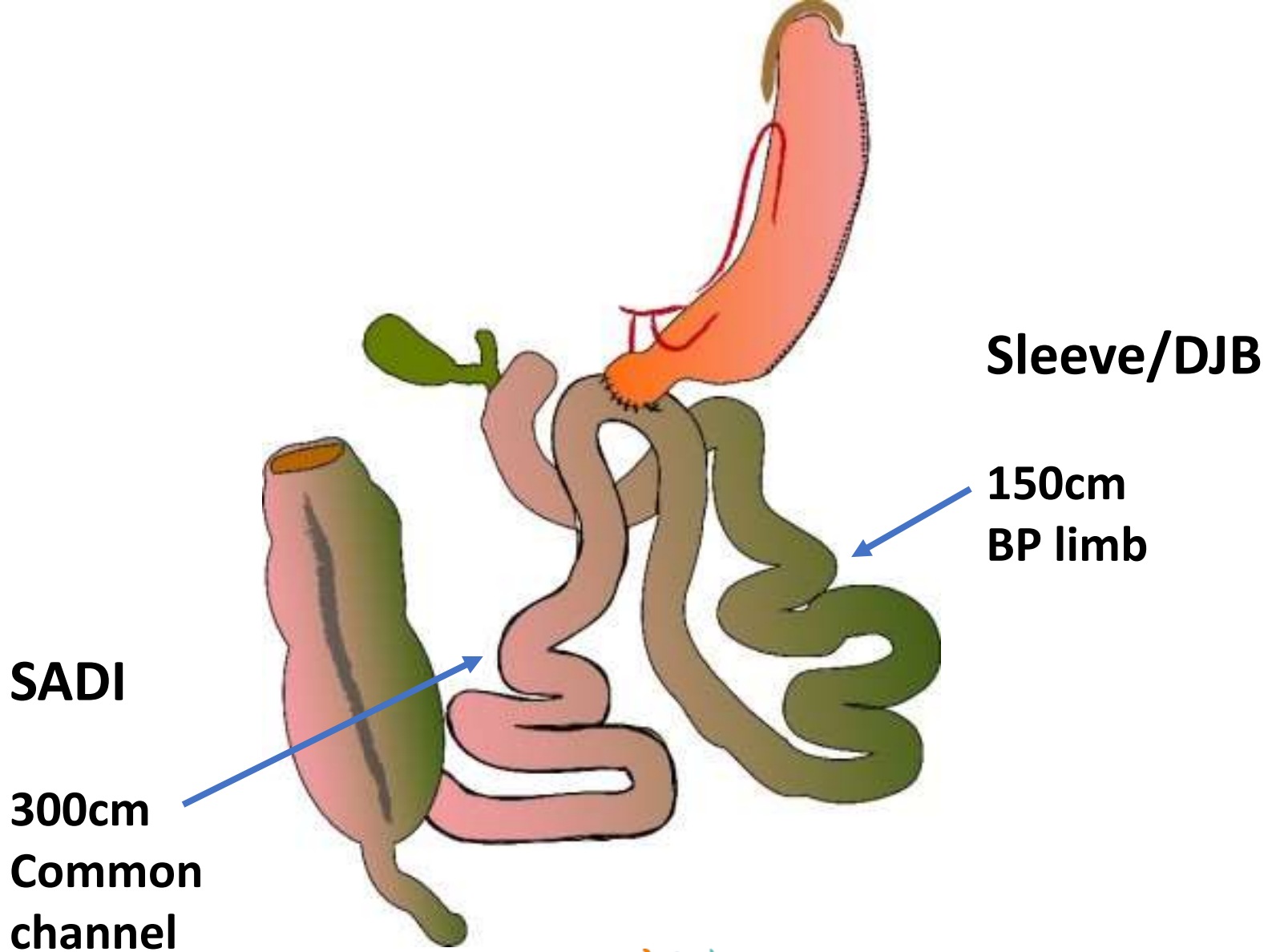
- *Proctor*
- *Teacher*

## Device Technologies Australia

- *Proctor*
- *Teacher*

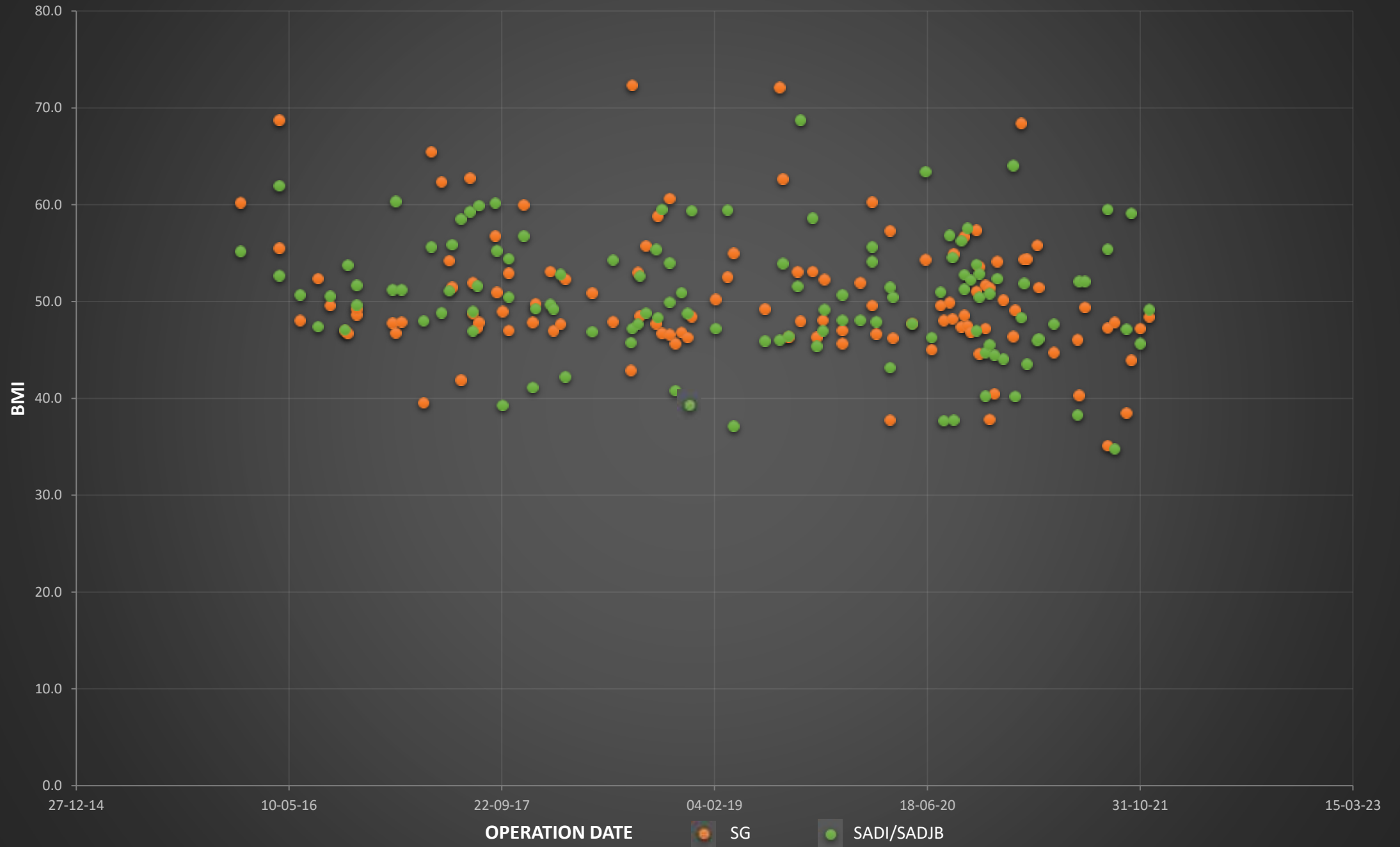
## Gore





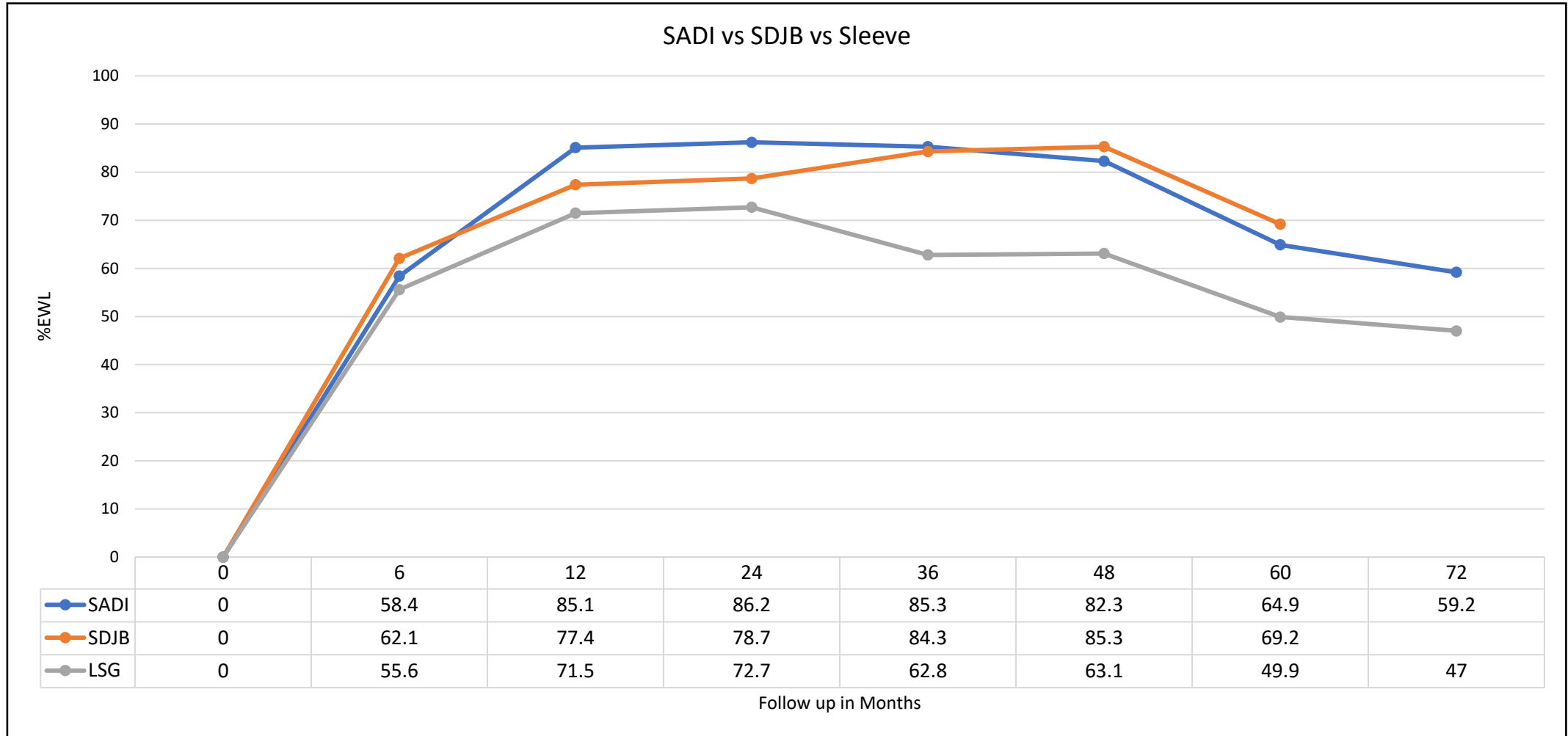


# Propensity Matching SG and SADI/SADJB



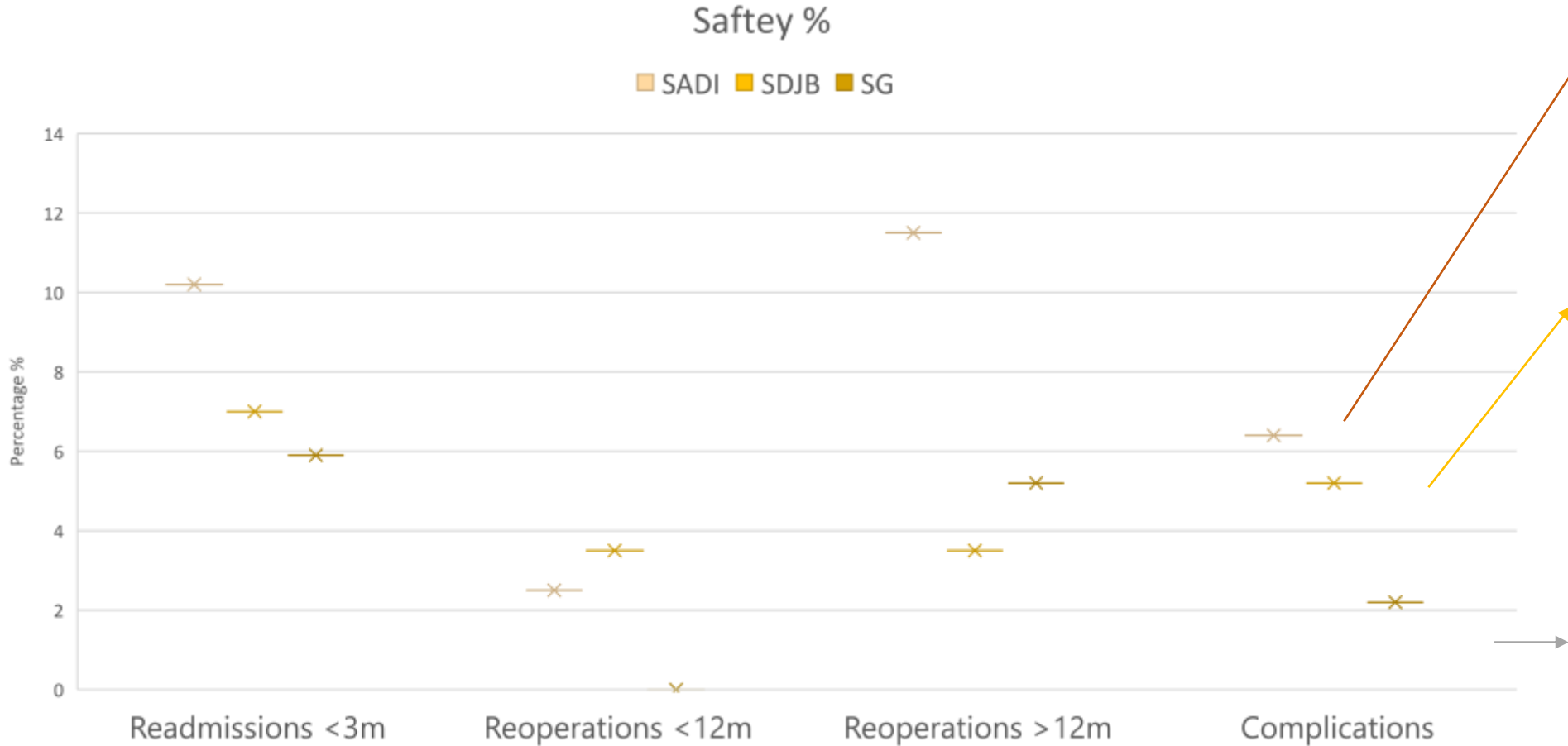
- *Question 1:* Does shortening the BP limb (SADI (300>ICV) to SDJB (150<DJF)) still have as good effect on weight loss and comorbidity resolution?
- *Question 2:* Are there fewer nutritional problems and loose bowels with the SDJB?
- *Question 3:* Does the shortened BP limb version still have better weight loss and comorbidity resolution compared to the sleeve?

# RESULTS: EWL% 6 years



Statistical significance between groups: SADI vs SDJB :  $p= 0.137$ , SADI vs SG:  $p= <0.001^*$ , SDJB VS SG:  $p= 0.033^*$

# RESULTS complications / safety



• P values 0.536

0.124

0.716

0.189

## SADI

≤II 5 (6.4)  
 >II 0 (0%)  
 1,1,1,2,2  
 CD 1 = Rehydration. rehydration ,  
 constipation / rehydration  
 CD 2 = N+V + UGIE 5mm gastric  
 ulcer , hypalbuminaemia UGIE –  
 Dx coeliacs

## SDJB

≤II 1 (1.7)  
 >II 2 (3.5%)  
 1, 3a,3b  
 CD1= admission unrelated cardiac  
 failure  
 CD3a- sleeve remnant ulceration  
 requiring stent insertion  
 CD3b- acute conversion to RYDS  
 due to alim limb filling

## SG

≤II 1 (0.7)  
 >II 1 (0.7)  
 1,3a  
 CD1=post op atelectasis  
 CD3a= severe regurgitation  
 requiring endoscopy

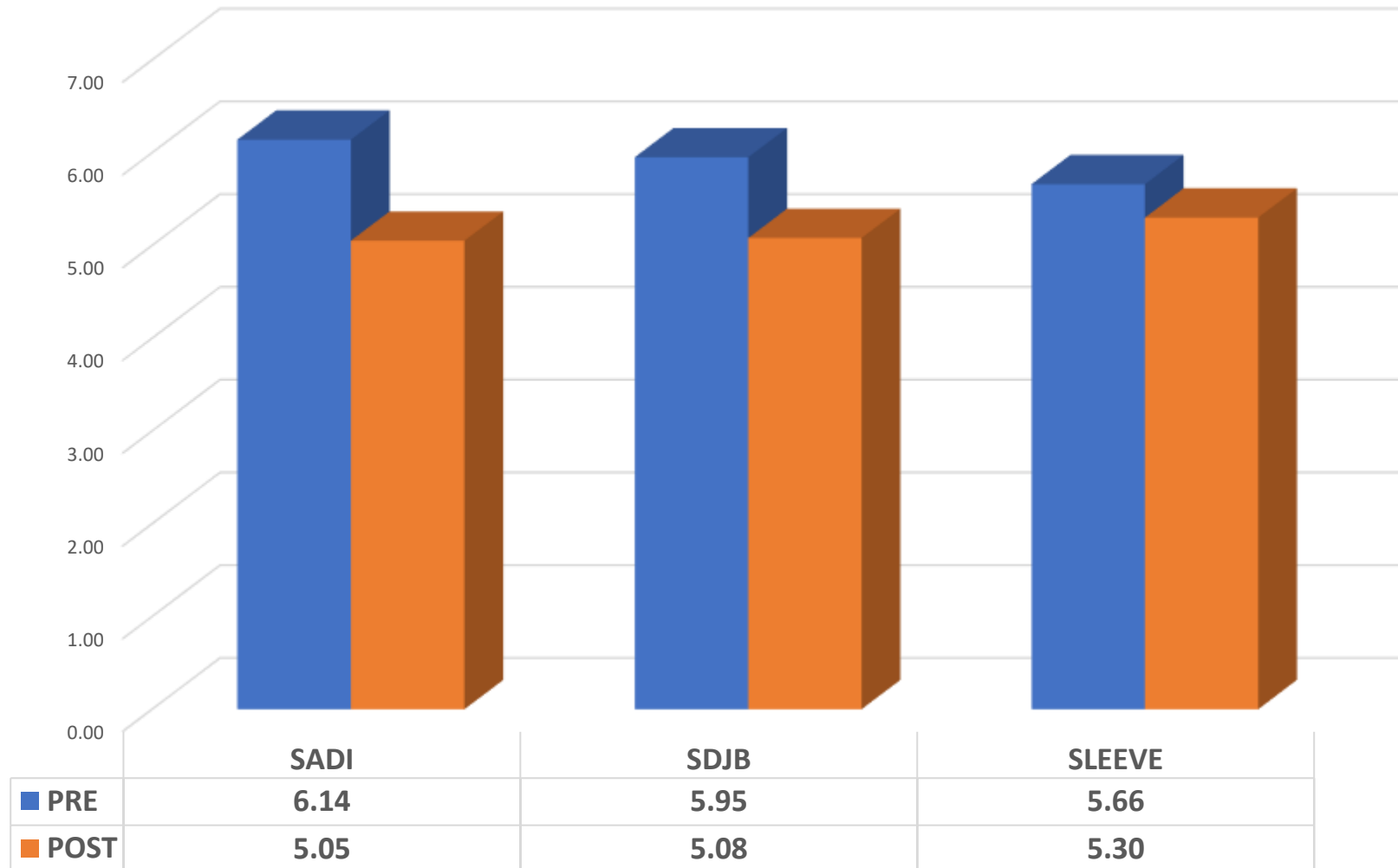




# Results - comorbidities

Variable	SADI	SDJB	SG	Sig
	Pre op n= 78 Post op n= 76	Pre op n= 57 Post op n= 57	Pre op n= 135 Post op n= 132	
Diabetes present				
Pre op	15 (19%)	9 (15%)	13 (11%)	P=0.334
Post op	2 ( 3%)	0 (0%)	1 ( 1%)	
Change				
- Decreased	13	9	12	
HTN present				
Pre op	22 (28%)	15 (26%)	27 (23%)	P=0.308
Post op	10 (14%)	3 (8%)	12 (12%)	
Change				
- Decreased	17	12	18	
Hypercholesterolemia present				
Pre op	6 (8%)	8 (14%)	11 ( 9%)	<b>P=0.004</b> <b>Between SDJB + SG: p = 0.003</b>
Post op	2 (3%)	0 (0%)	7 (7%)	
Change				
- Decreased	5	5	4	
Reflux present				
Pre op	3 (4%)	2 (3%)	13 ( 11%)	P=0.397
Number taking daily dose	3	1	4	
Number taking PRN <7days	0	1	9	
Post op	16 (23%)	5 (15%)	28 (29%)	
Number taking daily dose	12	4	22	
Number taking PRN <7days	4	1	6	
CPAP Use				
Pre op	9 (12%)	8 (14%)	15 (13%)	P=0.53
Post op	0 (0%)	1 (3%)	6 (6%)	

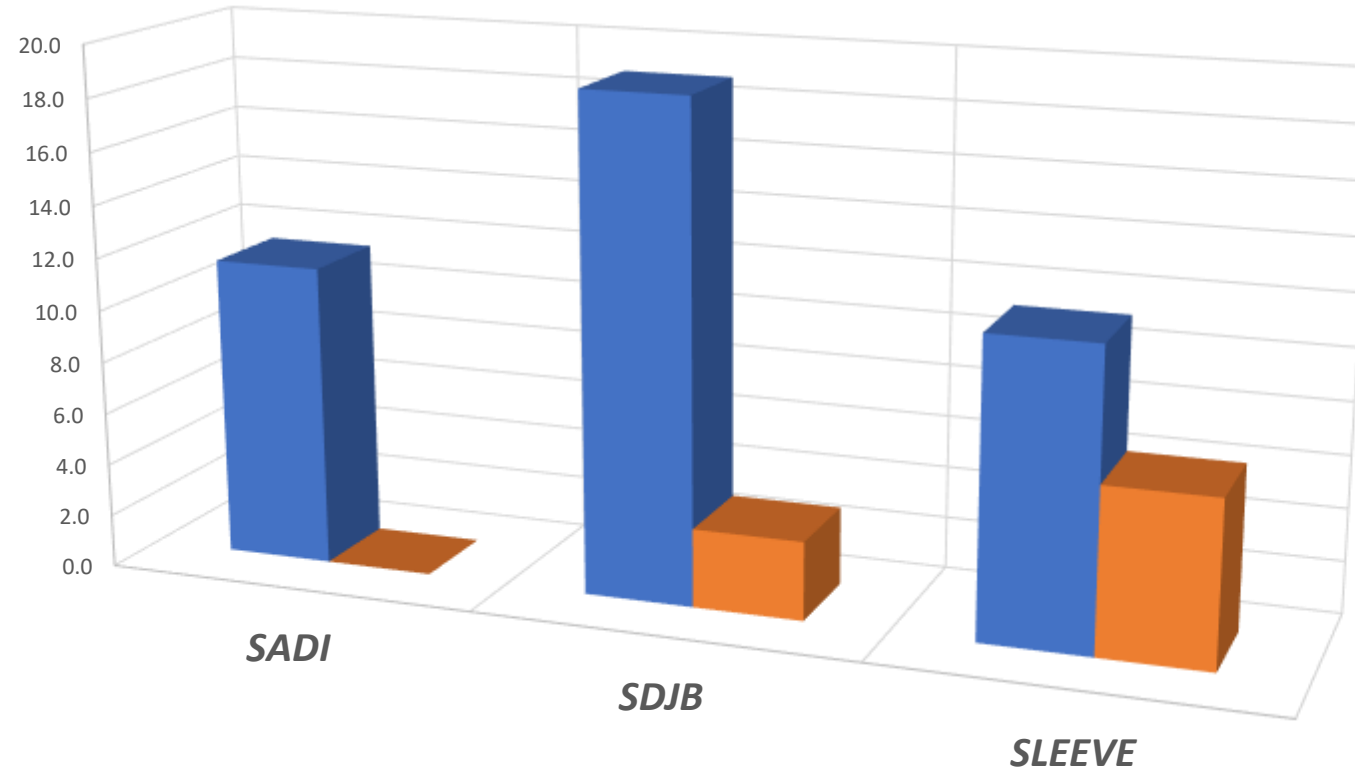
# HbA1c pre & post-op



P 0.030 SADI vs LSG

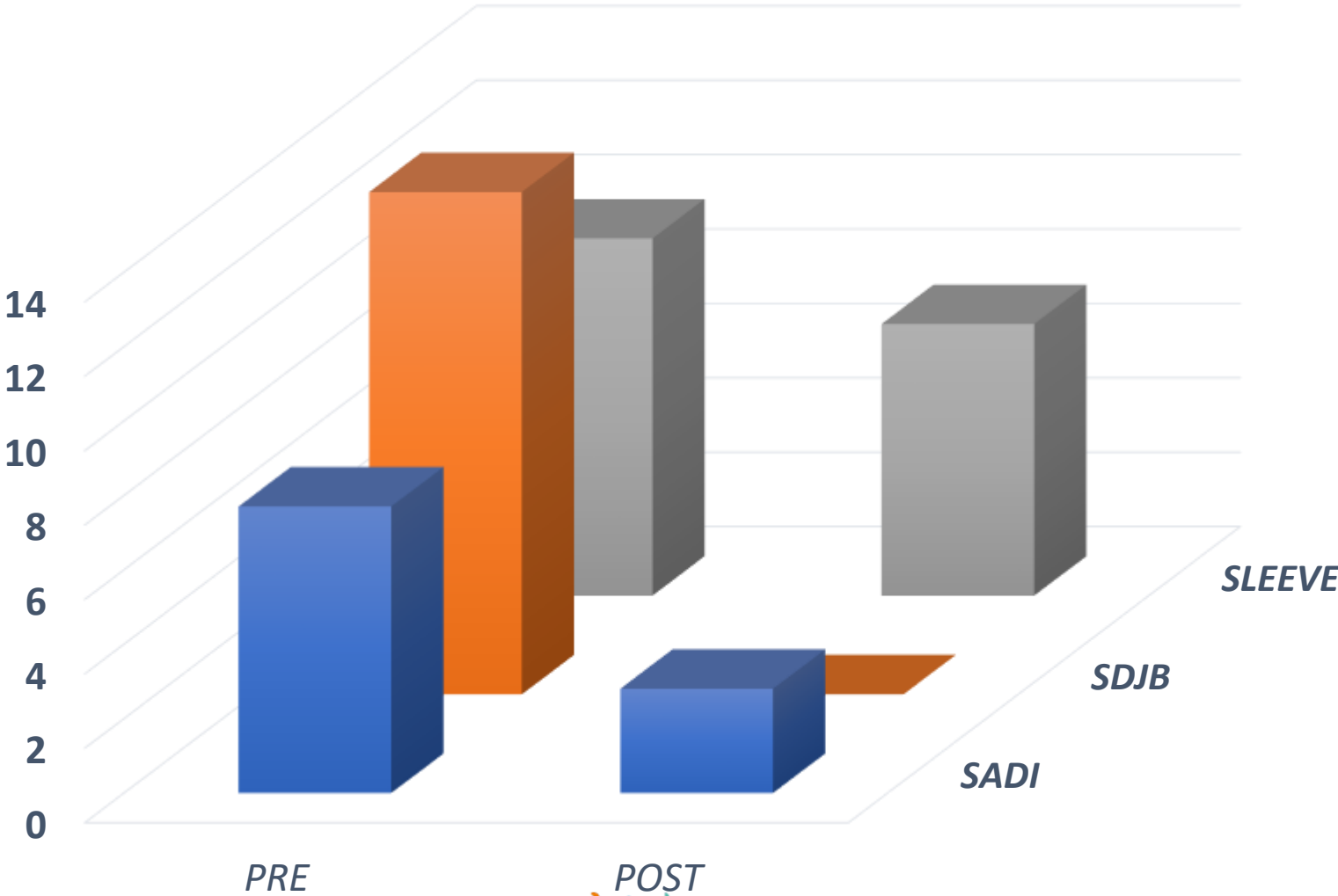


# % CPAP use



	SADI	SDJB	SLEEVE
■ PRE	11.5	18.9	11.3
■ POST	0.0	3.0	6.3

# % patients on statins

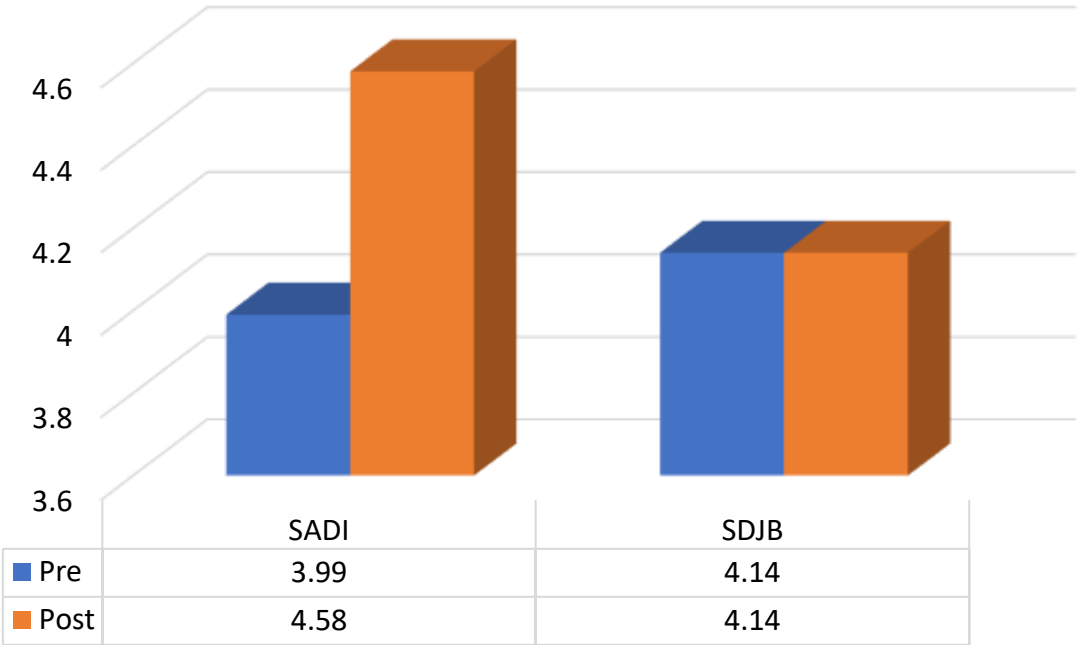


# Results biochemical

Variable	SADI	SDJB	SG	Sig
	Pre op N = 77 Post op N= 70	Pre op N = 38 Post op N= 30	Pre op N = 114 Post op N= 90	
Hb Pre op Post op	138.5 (10.6) 132 ( 13.1)	141.1 (14.1) 139 ( 12.9)	140.7 (14.7) 138 ( 14.4)	<b>p=0.023</b> <b>SADI vs SDJB p=0.049</b>
Corrected calcium Pre op Post op	2.3 ( .09) 2.3 ( .08)	2.3 ( .08) 2.4 ( .08)	2.3 ( .20) 2.4 ( .08)	<b>p=0.001</b> <b>SADI vs SDJB p= 0.021</b> <b>SADI vs SG p= 0.002</b>
Cholesterol Pre op Post op	4.9 ( 1.0) 4.0 ( .83)	4.8 ( 1.0) 4.2 ( .69)	5.1(.99) 5.1 ( .98)	<b>p=&lt;0.001</b> <b>SADI vs SDJB p=&lt;0.001</b> <b>SDJB vs SG p=&lt;0.001</b>
Triglycerides Pre op Post op	1.9 ( 1.4) 1.0 ( .39)	1.7 ( 1.0) 1.1 ( .39)	1.8 ( 1.0) 1.3 ( .67)	<b>p=0.001</b> <b>SADI vs SG p=&lt;0.001</b>
HbA1C Pre op Post op	6.1 ( 1.8) 5.0 ( .48)	5.9 (1.2) 5.0 ( .52)	5.6 ( 1.0) 5.3 ( .55)	<b>p=0.032</b> <b>SADI vs SG p=0.030</b>
B12 Pre op Post op	330.4 ( 126.4) 357.9 (206.6)	366.7 ( 162.9) 455.5 ( 173.3)	336.3 ( 152.1) 291.2 ( 173.7)	<b>p=&lt;0.001</b> <b>SDJB vs SG p=&lt;0.001</b>
Folate Pre op Post op	27.2 ( 11.2 ) 15.1 ( 9.6)	26.0 ( 10.5) 24.5 ( 12.0)	26.2 ( 10.4) 22.8 ( 13.7)	<b>p=&lt;0.001</b> <b>SADI vs SG p=0.002</b> <b>SDJB vs SG p=&lt;0.001</b>
Selenium Pre op Post op	1.3 ( 0.2) 1.1 ( 0.24)	1.3 ( 0.1) 1.41 (0.37)	1.3 ( 0.2) 1.32 ( 0.21)	<b>p=0.041</b> <b>SADI v SG p=0.046</b>

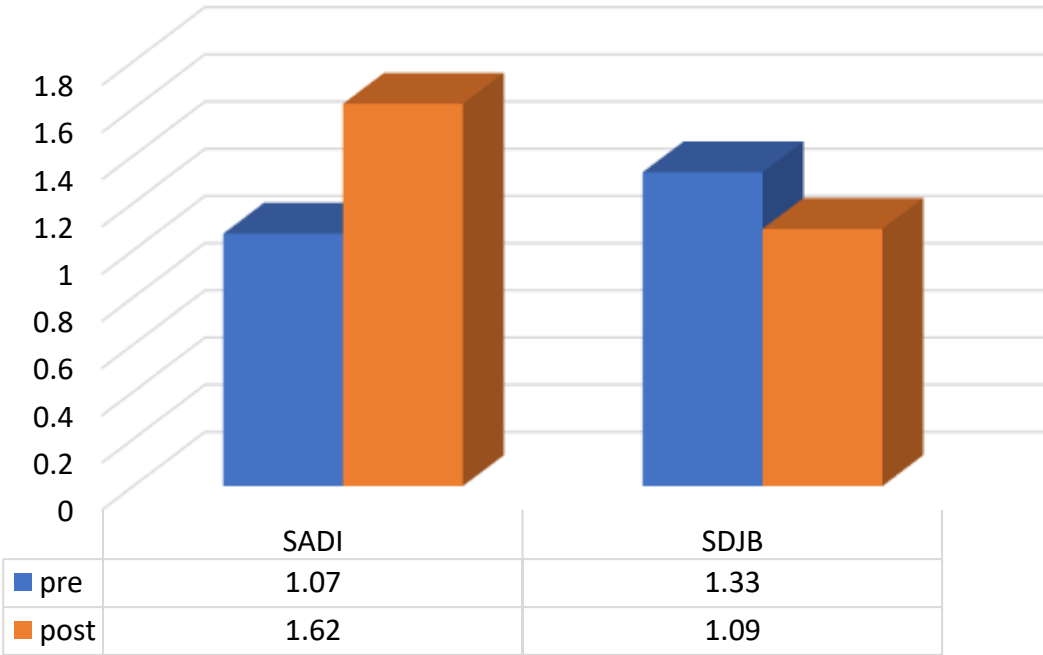
# BOWELS

Average Bristol stool classificaton



Significance between two groups  
 Pre op 0.060  
 Post op \*<0.001

Average BM/D

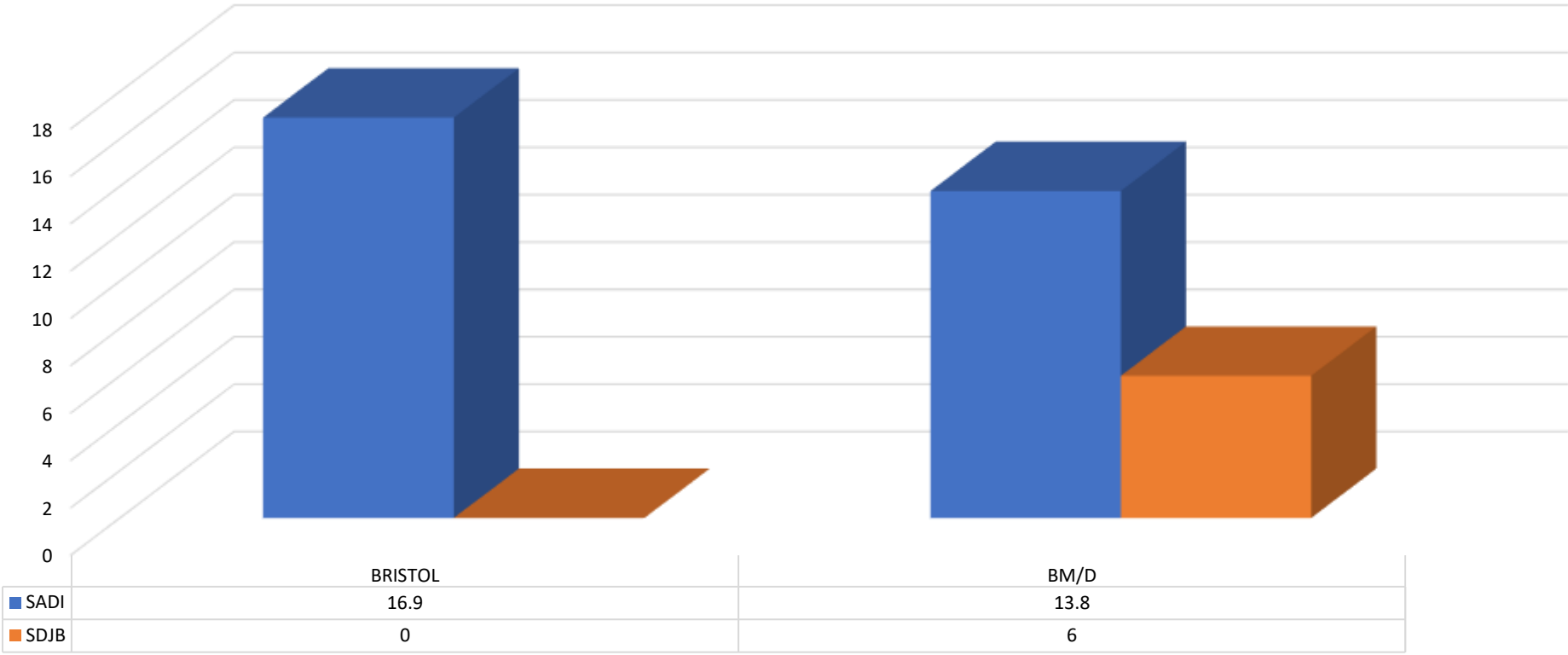


Significance between two groups  
 Pre op \*<0.001  
 Post op \*0.03

# BOWELS

### % BRISTOL $\geq 6$

### % BM/D $\geq 3$ Post Operative



# SUMMARY

Our results indicate that by fixing the BP Limb to 150cm we can:

- maintain long term weight loss (6 years), similar to SADI
  - significantly improve bowel habits
- improve long term complications of malabsorption and maintain accepted safety standards

Overall, in our series, long term outcomes of SDJB are either similar or significantly better than SG and SADI





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