

The Impact of Bariatric Surgery on Pregnancy: A Comparative Study of Pre- and Post-Surgery Outcomes

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Introduction

Obesity is a growing crisis and bariatric surgery is a proven, effective solution. The largest cohort undergoing this surgery are women of childbearing age. The lack of understanding has an impact on pregnancy and neonatal outcomes. This study compares pregnancy outcomes in women before and after restrictive and malabsorptive bariatric surgery. It provides a direct comparison of the impact of the surgery within the same individual.

Results

Table 1 Maternal outcomes

Characteristic		Pre-Bariatric Surgery	Post-Bariatric Surgery	Paired p-value†
Nausea/vomiting		2 (5%)	25 (63%)	<0.001
Hyperemesis gravidarum		1 (3%)	17 (43%)	<0.001
Dumping Syndrome		0	12 (30%)	<0.001
Gestational Diabetes		8 (21%)	24 (62%)	<0.001
Pregnancy-Induced Hypertension		7 (18%)	1 (3%)	0.014
Pre-eclampsia		4 (10%)	0	0.046
3 rd Trimester Scan	AC centile‡	61 [38,75]	40 [21,69]	0.003
	EFW centile‡	82 [61,95]	47 [18,84]	<0.001

†Wilcox Signed-Rank and McNemar’s test.

‡ Fetal Medicine Foundation references for AC, EW and birthweight

Study Design

This is a retrospective cohort study of 80 pregnancies in 40 women assessing 140 variables.

Table 2 Neonatal Outcomes

Characteristic	Pre-Bariatric Surgery	Post Bariatric Surgery	Paired p-value†
Gestation at delivery	40 [39,41]	39 [38,40]	<0.001
Birthweight (grams)	3450 [3190, 3845]	3285 [2820, 3760]	0.003
Birthweight >4kg	8 (20%)	2 (5%)	0.034
Birthweight centile‡	58 [28,83]	48 [13,83]	0.124
Infant Hypoglycaemia	2 (5%)	0	0.157
NICU admission	4 (10%)	4 (10%)	1.000

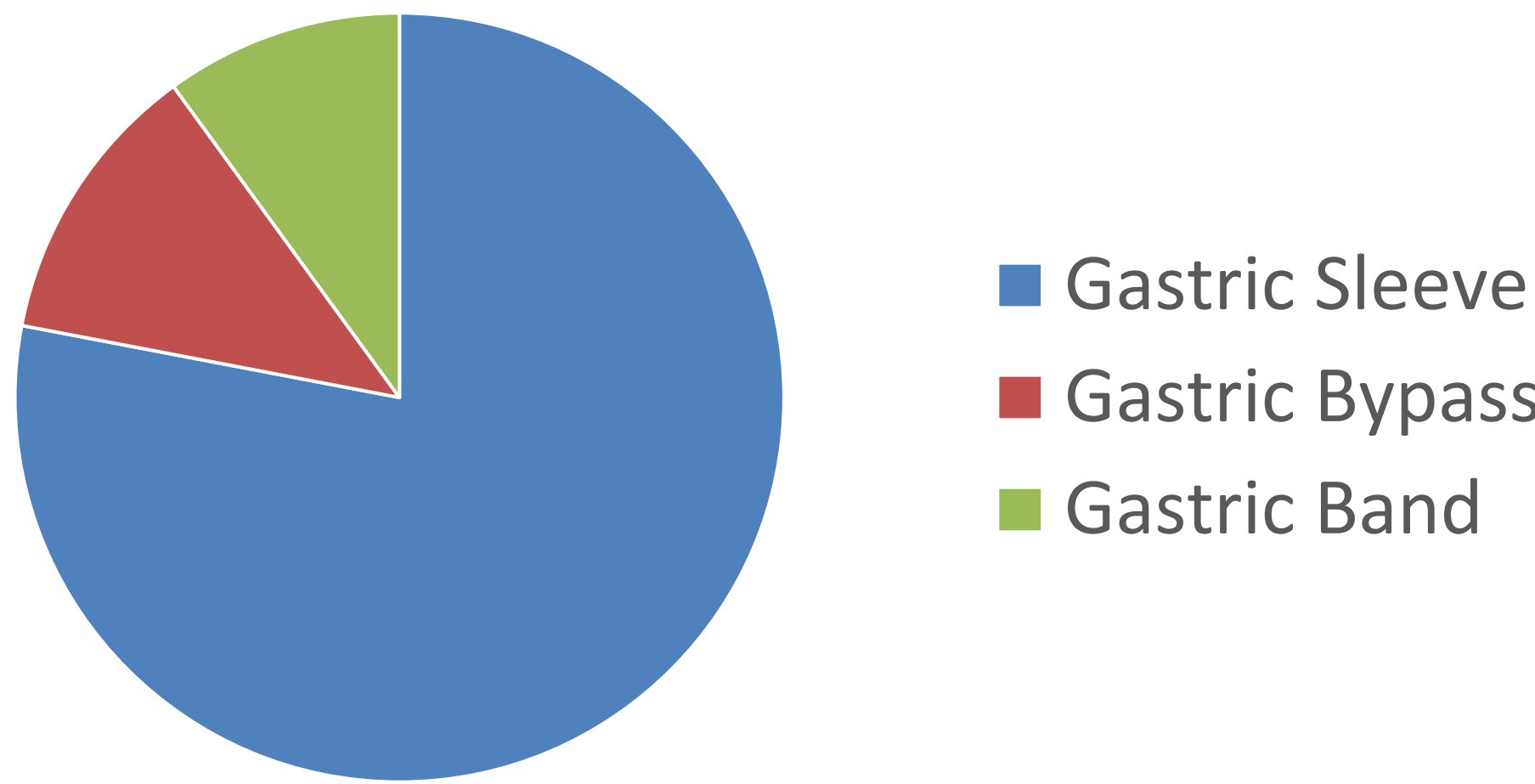
Country of Bariatric Surgery

Turkey	29 (72.5%)
Ireland	5 (13%)
Lithuania	2 (5%)
Belgium	1 (3%)
Egypt	1 (3%)
Poland	1 (3%)

Table 3 Mode of Delivery

Characteristic	Pre-Bariatric Surgery	Post Bariatric Surgery	Paired p-value†
Spontaneous vaginal delivery	20 (50%)	25 (63%)	0.039
Operative vaginal delivery	6 (15%)	0	0.014
Caesarean delivery	14 (35%)	15 (38%)	0.564
Induction of Labour (IOL)	23 (58%)	19 (48%)	0.248
Maternal indication for IOL	3 (13%)	3 (13%)	1.000
Shoulder Dystocia	2 (7%)	0	0.157

Types of Bariatric Surgery



Conclusion

This study highlights the growing popularity of bariatric surgery and its impact on pregnancy and neonatal outcomes. There is an urgent need to develop international guidance, particularly in the diagnosis and management of gestational diabetes is cohort. This study will assist women in making informed decisions about the timing of bariatric surgery, relative to family planning.

