

Systematic Review of Excisional Techniques for Treatment of Gynecomastia

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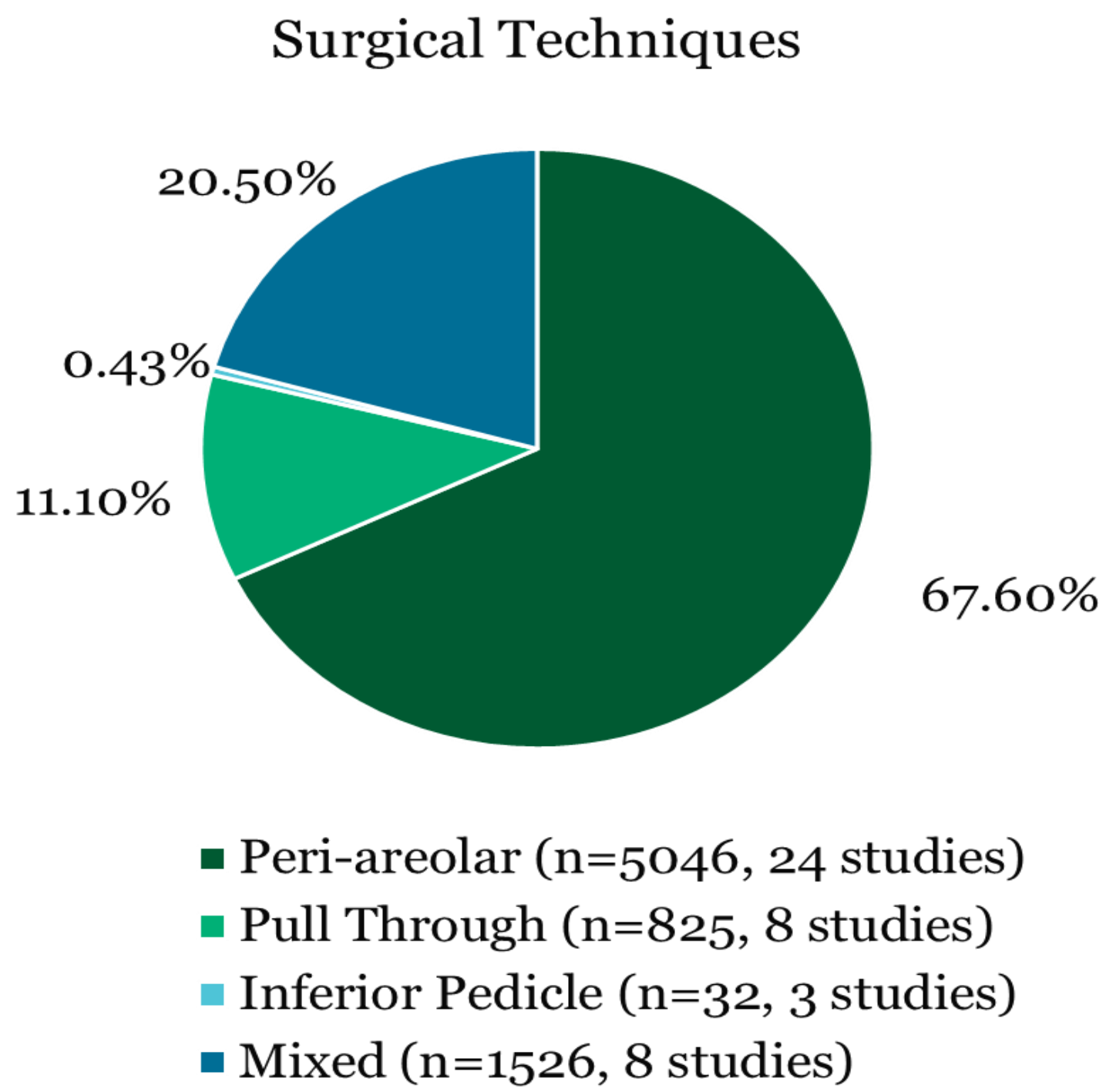
Background

- Gynecomastia is the benign enlargement of glandular breast tissue in males
- Associated with significantly lower ratings of general health, self-esteem, social functioning, and mental health
- Surgical treatment is associated with increased quality of life
- The purpose of this study is to evaluate outcomes for excisional techniques for the surgical correction of gynecomastia

Methods

- Literature Search:** PubMed/Medline, SCOPUS, and the Cochrane database of controlled trials
- Studies published **1/1/2000-08/30/2022**
- The Preferred Reporting Items in Systematic Reviews and Meta-Analyses (**PRISMA**) were applied
- Two Reviewers
- Inclusion:**
- Any mastectomy technique for gynecomastia
- Primary literature
- Exclusion:**
- Liposuction only cases
- Endoscopic cases
- Massive weight loss
- Patients <18
- Less than <5 patients per cohort
- Comparisons were not made for statistical significance due to variability between groups

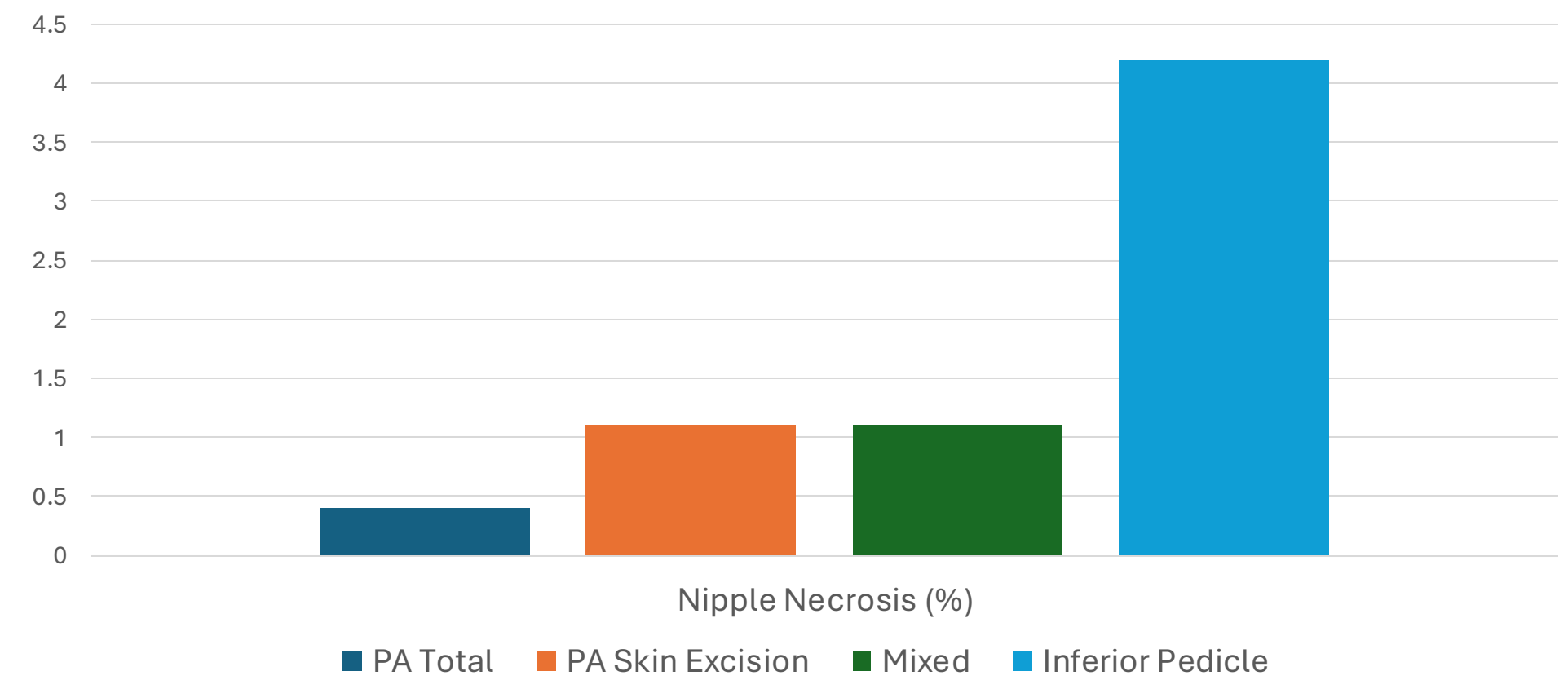
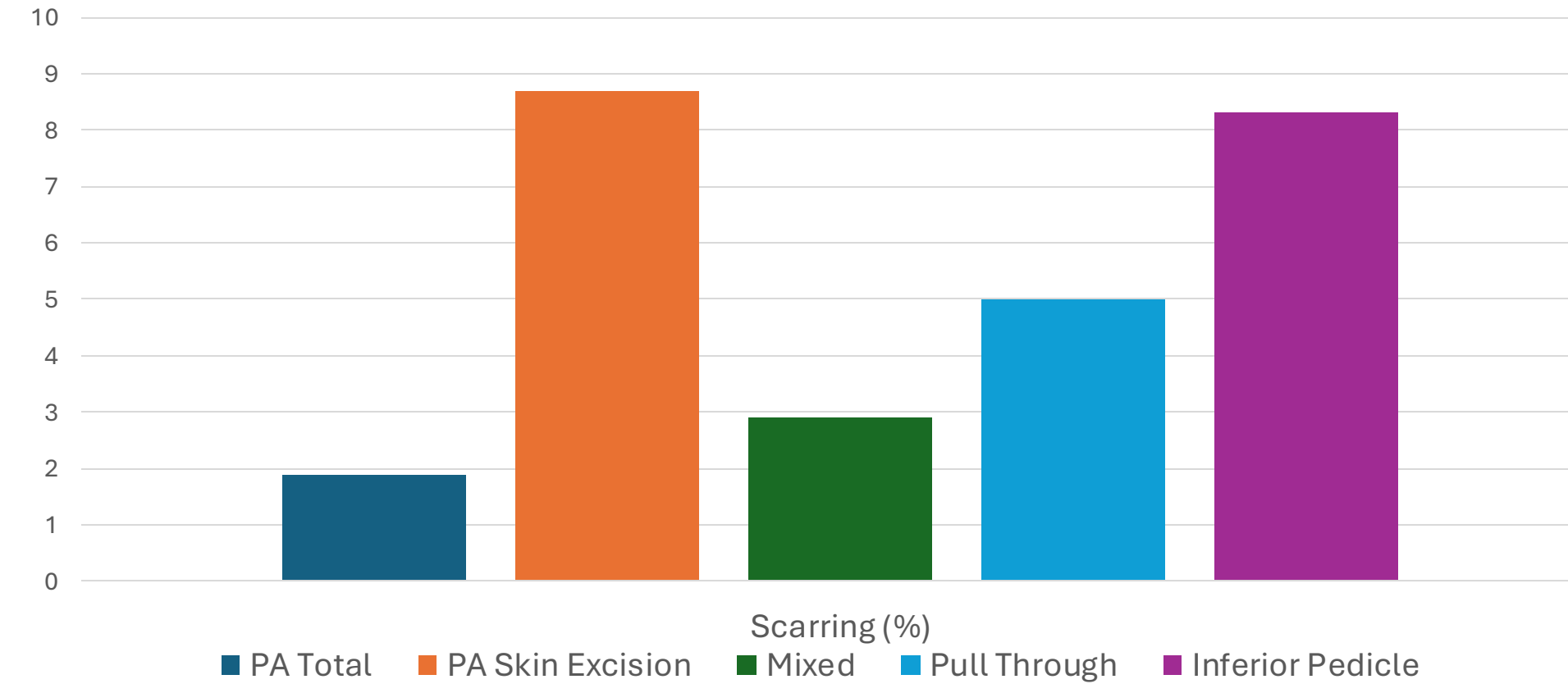
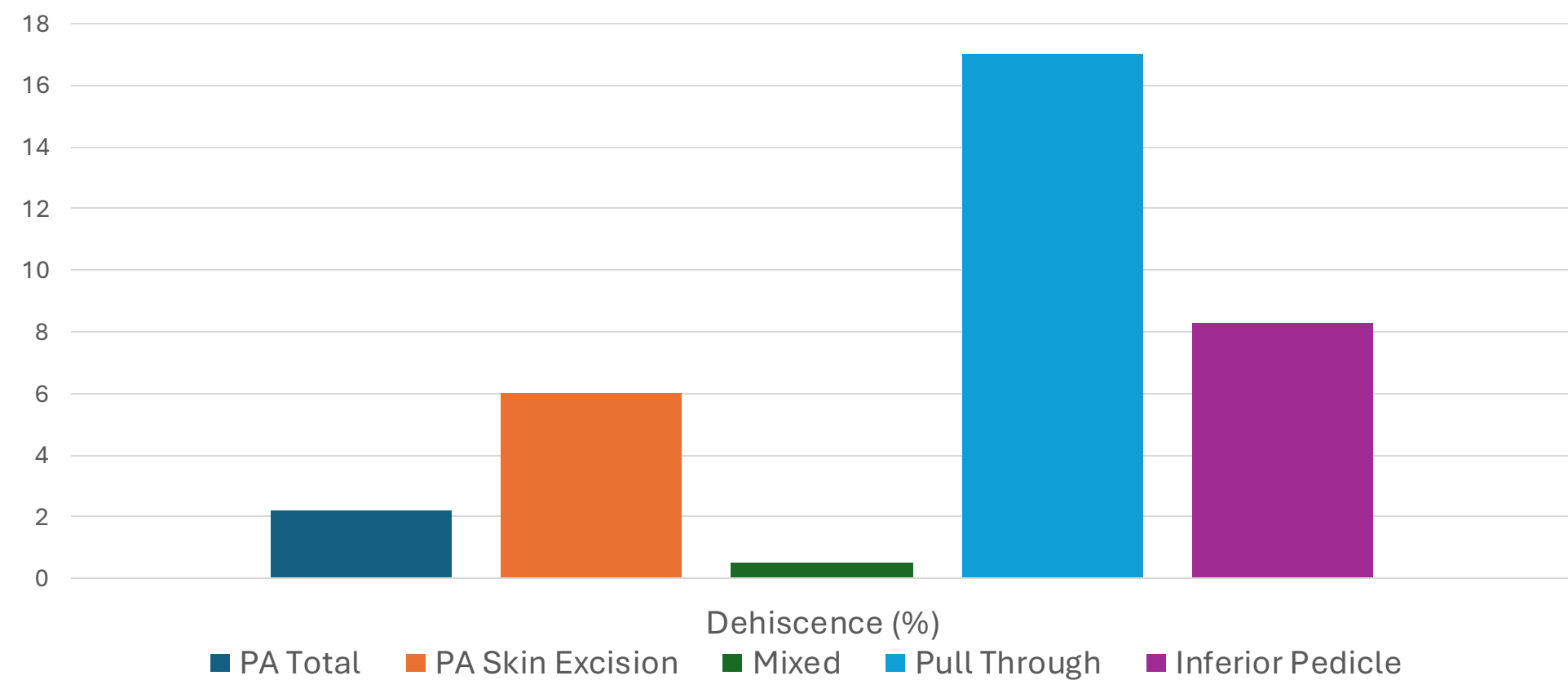
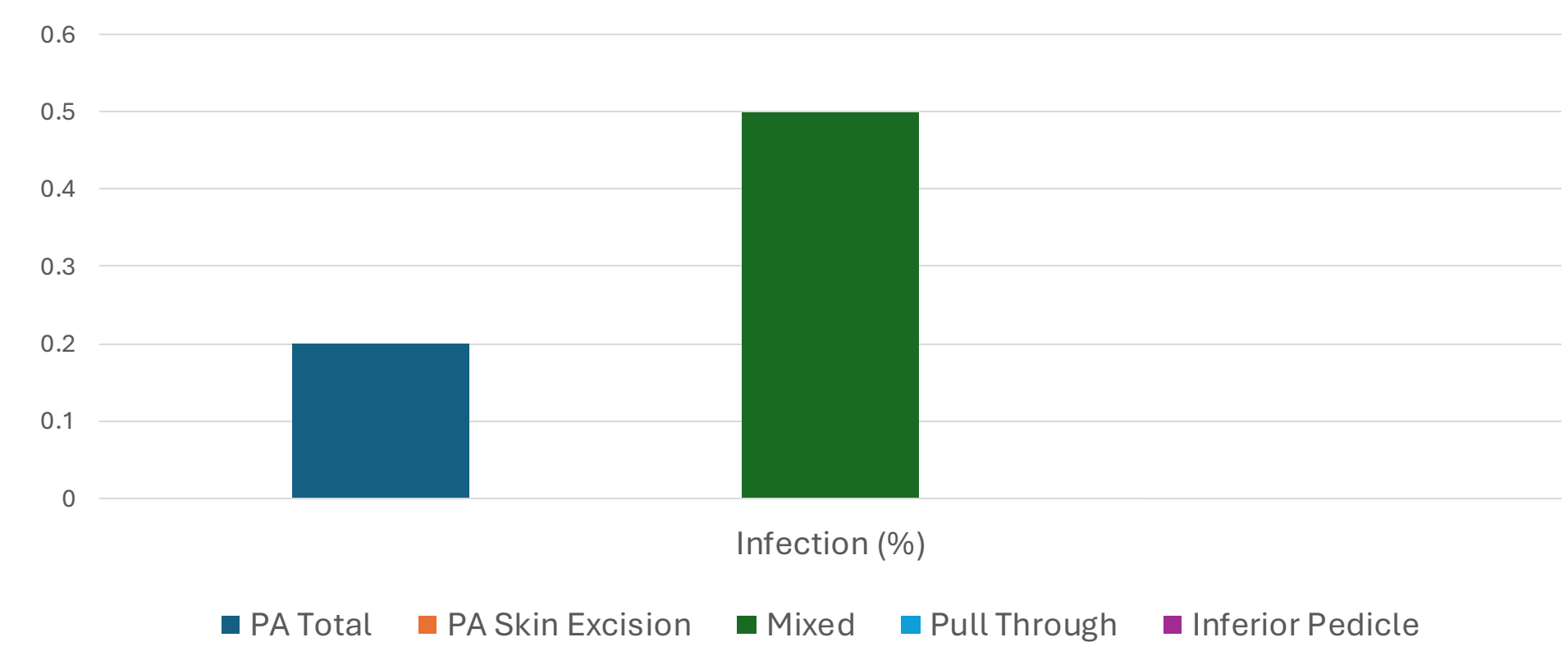
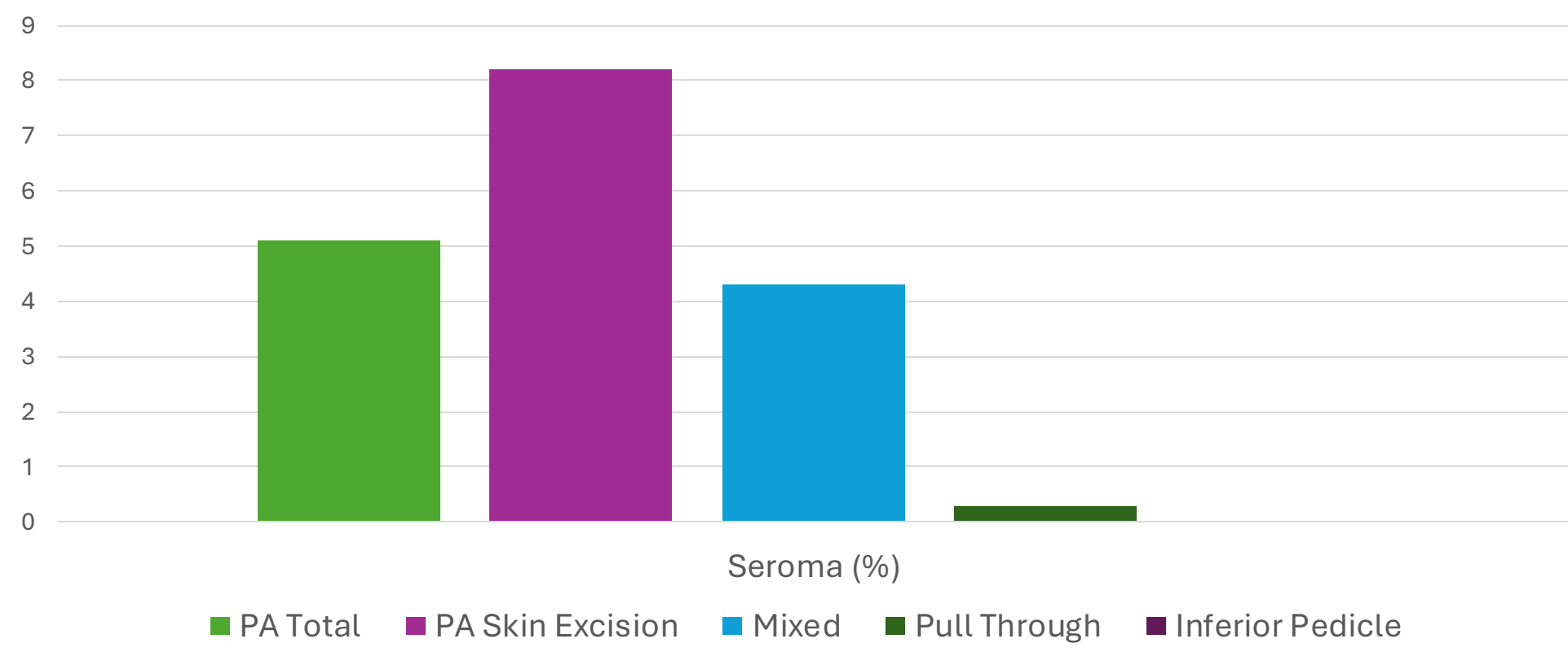
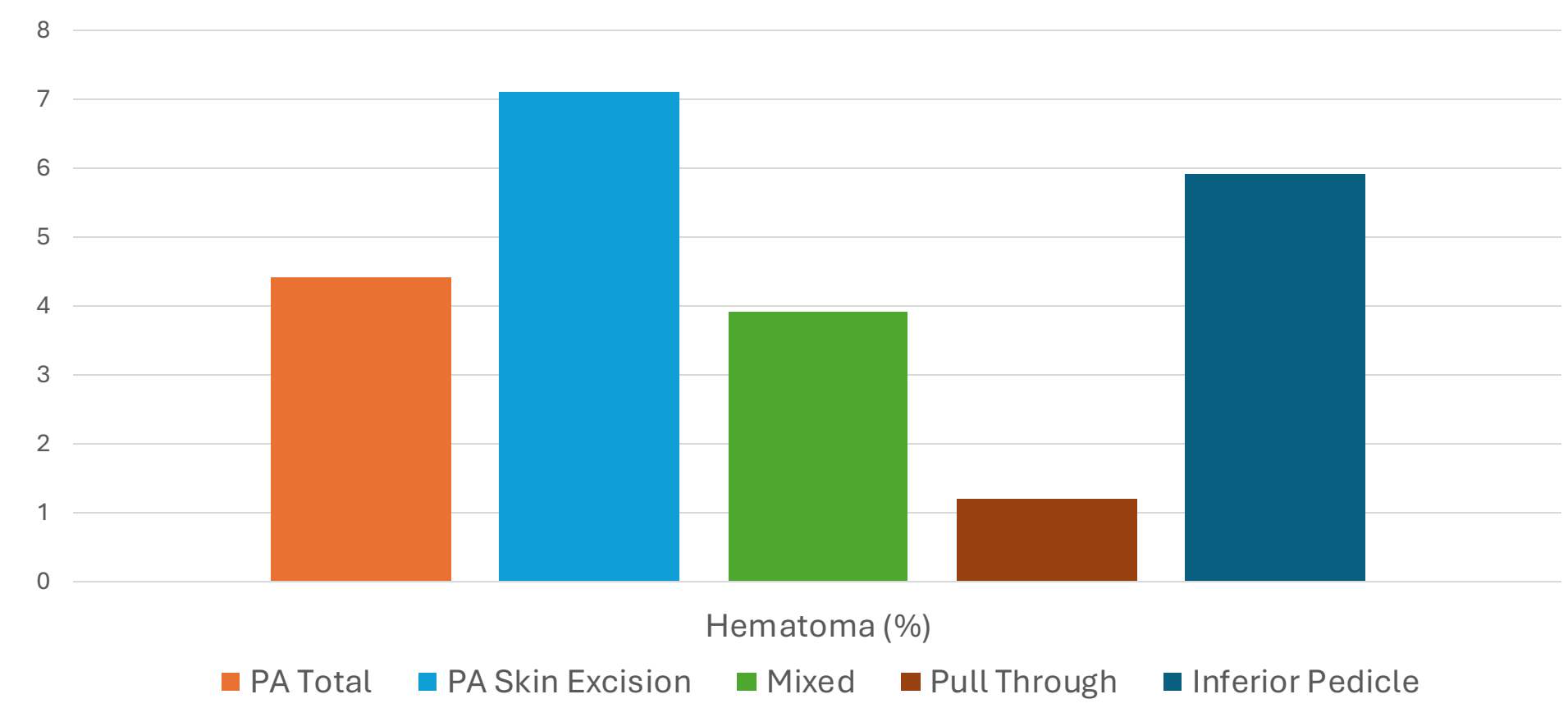
Results



Total - 7459 patients , 68 treatment groups, 59 studies

Table 1: Complication Rates										
	PA Total (n=5046)		PA-Skin Excision (n=251)		Mixed (n=1526)		Pull-Through (n=825)		Inferior-Pedicle (n=32)	
	Value (%)	N patients (treatment groups, studies) reporting	Value (%)	N patients (treatment groups, studies) reporting	Value (%)	N patients (treatment groups, studies) reporting	Value (%)	N patients (treatment groups, studies) reporting	Value (%)	N patients (treatment groups, studies) reporting
Hematoma	166 (4.4)	3797 (44, 36)	13 (7.1)	183 (8, 8)	53 (3.9)	1352 (7,7)	10 (1.2)	825 (8,8)	1 (5.9)	17 (3,3)
Seroma	192 (5.1)	3767 (44, 36)	15 (8.2)	183 (8, 8)	58 (4.3)	1352 (7,7)	2 (0.3)	676 (7,7)	0 (0)	32 (3,3)
Infection	8 (0.2)	3767 (44, 36)	0 (0)	183 (8, 8)	8 (0.5)	1526 (8,8)	0 (0)	676 (7,7)	0 (0)	32 (3,3)
Dehiscence	55 (2.2)	2466 (15, 11)	8 (6.0)	133 (4, 4)	1 (0.5)	204 (2,2)	52 (17)	312 (2,2)	2 (8.3)	24 (2,2)
Scarring	39 (1.9)	2006 (19, 13)	12 (8.7)	138 (5, 5)	17 (2.9)	577 (3,3)	13 (5)	260 (1,1)	2 (8.3)	24 (2,2)
Nipple Necrosis	8 (0.4)	1971 (20, 17)	1 (1.1)	89 (6, 6)	11 (1.1)	989 (4,4)	-	-	1 (4.2)	24 (2,2)
PA= periareolar										

Results



Conclusions

- Overall, low rates of complications among most techniques for surgical correction of gynecomastia
- For all techniques identified, hematoma, seroma, and nipple necrosis <6%
- Rates of infection <1%
- Higher rates of dehiscence and nipple necrosis in cohorts with peri-areolar skin excision may be due to increased tension and incision bunching around the nipple-areolar complex