

Purpose

Reconstruction of female oncologic peripelvic defects is challenging due to complex anatomy, neoadjuvant chemoradiation, resection margins, and subsequent wound healing risks. Functional restoration requires thoughtful perioperative management focused on both defect reconstruction and patient reported outcomes.

Methods

- Retrospective review of peripelvic defect reconstruction in female patients at MD Anderson Cancer Center from 2016 to 2023
- Data collected:
 - Comorbidities
 - Tumor characteristics
 - Reconstructive details
- Complications:
 - Non-operative within 30 days
 - Operative within 30 days
- Patient outcomes:
 - Survival
 - Hernia rates
 - Sexual activity
 - Need for revision

Conclusions

Peripelvic soft tissue reconstruction in the oncologic population is safe, even in comorbid patients with neoadjuvant therapy. Thigh-based reconstruction is more common in robotic resections requiring vaginal reconstruction. Return to sexual activity is higher when given dilator therapy instruction.

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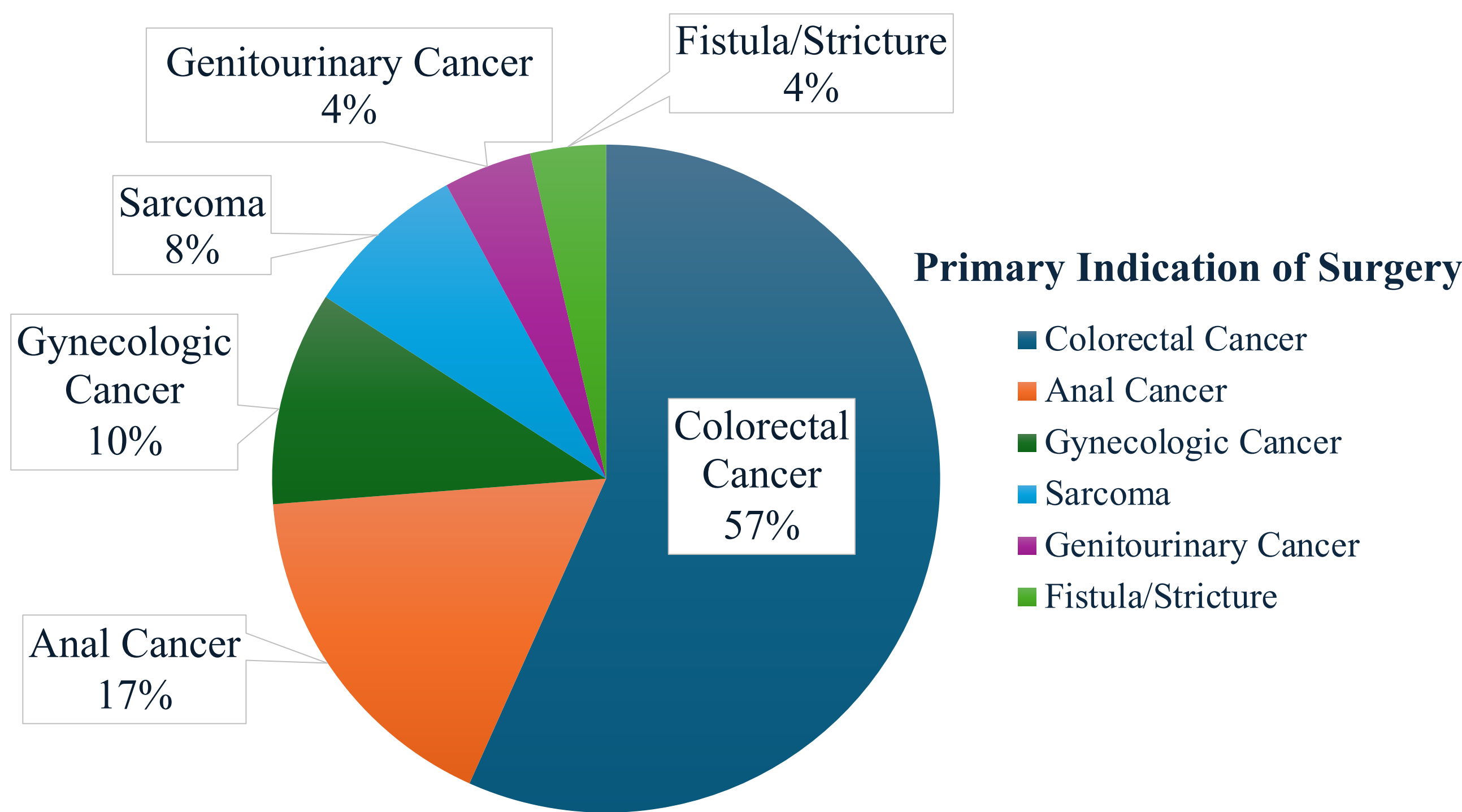
Results (N=164)

- Indication for resection (Figure 1): Colorectal (57%), Anal (17%), Gynecologic (10%), Sarcoma (8%), Genitourinary (4%), Stricture or Fistula (4%)
- Resection Procedures (Table 2): Open Resection+Vaginectomy (66%), Vaginectomy/Vulvectomy (10%), Robotic Resection+Vaginectomy (9%), Open Resection without Vaginectomy (7%), Fistula/Stricture Reconstruction (6%) Robotic Resection without Vaginectomy (2%)
- Reconstruction Procedures (Figure 2): Pedicled Flap (93%), Local Tissue Rearrangement (3%), Both (4%)
- Abdominal Wall Reconstruction: Overall (N=84, 51%): (82/84) 98% performed in Open Resections; Of All Patients with Open Resections (N=120): 68% Formal AWR, 60% Mesh, 36% Component Separation
- Complications: Overall (47%), Major (9%), Minor (38%), Hernia (5%)

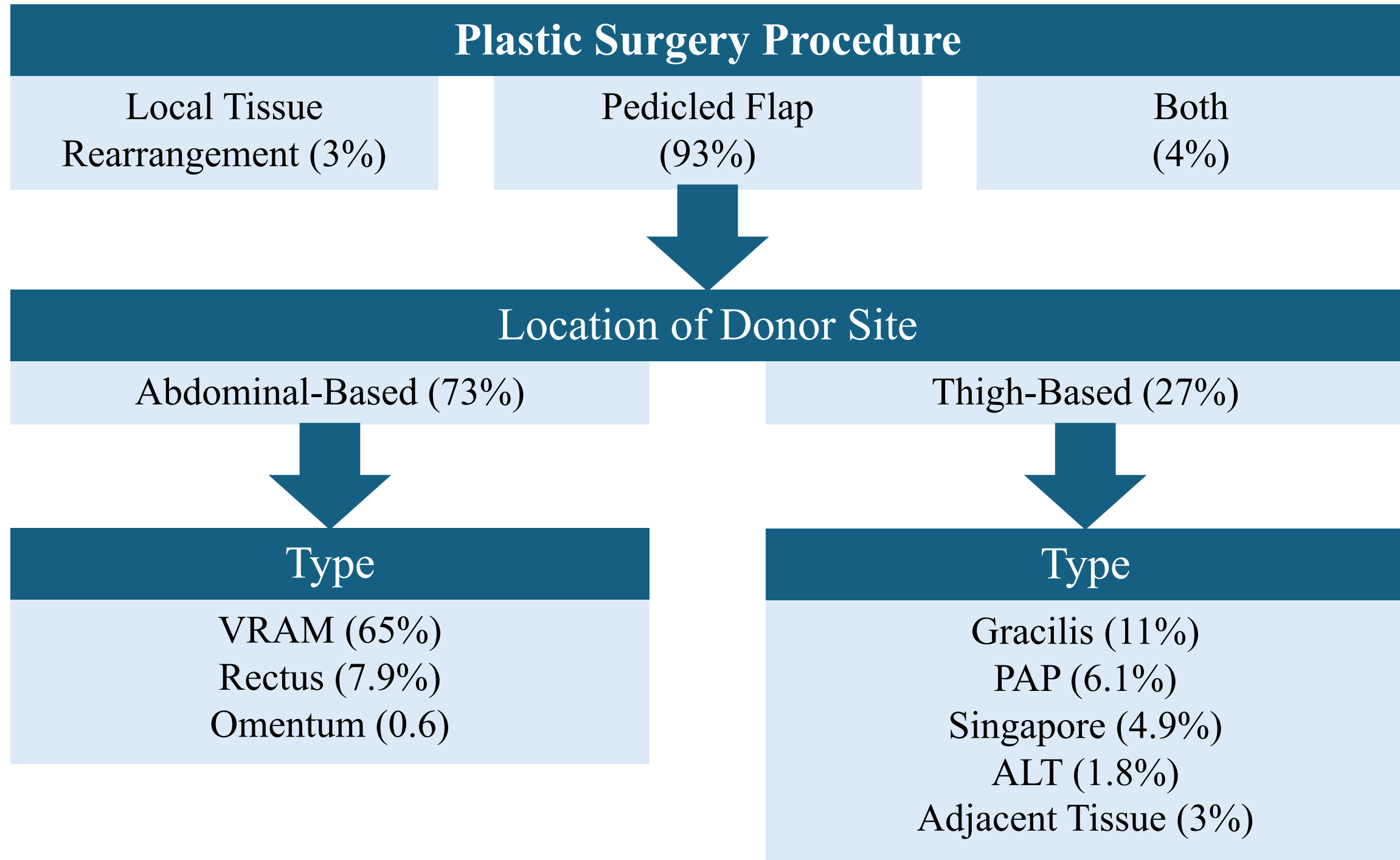
[Table 1]

Patient Demographics	
Age	60 years (51-68)
BMI	25.8 (22-31.5)
Underweight	6 (3.7%)
Normal	70 (43%)
Class I Obesity	33 (20%)
Class II Obesity	48 (29%)
Class III Obesity	7 (4.3%)
Diabetes	18 (11%)
Active Smoking	11 (6.7%)
Prior Radiotherapy	136 (83%)
Active Fistula	16 (9.8%)

[Figure 1]



[Figure 2]



[Table 2]

Plastic Surgery Procedure by Indication	Adjacent Tissue	Abdominal-Based	Thigh-Based
Open Total Resections + Partial Gynecological	0	103/109 (94.5%)	6/109 (5.5%)
Robotic Resections + Partial Gynecological	0	1/15 (6.6%)	14/15 (93.3%)
Open Total Resections	0	11/11 (100%)	0
Robotic APR/LAR	1/3 (33%)	0	2/3 (33%)
Partial Gynecological Resections	3/16 (18.8%)	1/16 (6.3%)	12/16 (75%)
Other	1/10 (10%)	4/10 (40%)	5/10 (50%)

Table 1: Patient demographics

Figure 1: Indication for Resection

Figure 2: Plastic Surgery Procedures

Table 2: Plastic surgery procedures performed based on indication for resection

Table 3: Predictors of Return to Sexual Function

[Table 3]

Return to Sexual Function	No (N=141, 89%)	Yes (N=17, 11%)	p
Age	61 (52-69)	55 (44-60)	0.017
BMI Class			0.008
Underweight	1 (0.7%)	3 (18%)	
Normal	61 (43%)	8 (47%)	
Class I Obesity	27 (19%)	4 (24%)	
Class II Obesity	45 (32%)	2 (12%)	
Class III Obesity	7 (5.0%)	0 (0%)	
Surgical Resection			0.021
Open Resection with Vaginectomy	99 (70%)	7 (41%)	
Robotic Resection w Vaginectomy	12 (8.5%)	2 (12%)	
Isolated Gynecologic Open Resection Alone	12 (8.5%)	2 (12%)	
Robotic Resection Alone	9 (6.4%)	2 (12%)	
Other	1 (0.7%)	2 (12%)	
Reconstruction Type			0.044
Thigh-Based	33 (23%)	8 (47%)	
Abdominal-Based	108 (77%)	9 (53%)	
Formal AWR	80 (57%)	2 (12%)	<0.001
Mesh	71 (50%)	2 (12%)	
Components	41 (29%)	1 (5.9%)	
Vaginal Dilator Therapy	46 (33%)	17 (100%)	<0.001