

Neovaginal Reconstruction: National Analysis of Risk Factors and Complications

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Background

Gender-affirming bottom surgery is gaining momentum as an available surgical intervention for transfeminine patients with gender dysphoria. It remains unknown whether certain comorbidities and lifestyle risk factors increase complication rates after vaginoplasty.

Purpose

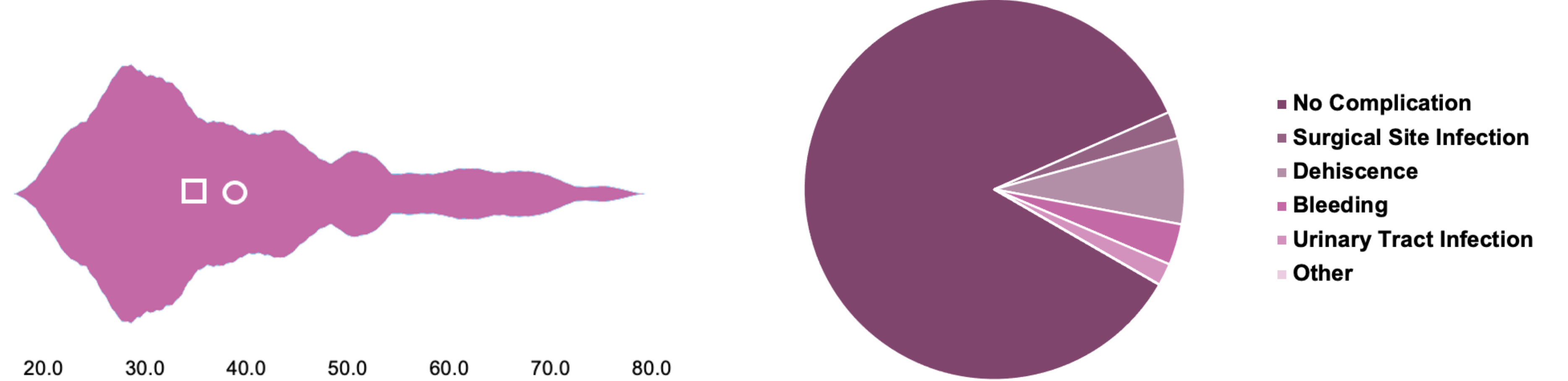
Elucidate modifiable and unmodifiable risk factors for complications after neovaginal reconstruction

Methods

	Study Design:	Retrospective cohort study
	Participants:	Gender-affirming neovaginal reconstruction
	Institutions:	Hospitals participating in NSQIP
	Dates:	2015-2019
	Outcomes:	30-day postoperative complications

Results

- 1506 patients** underwent gender-affirming bottom surgery
 - 17.2% (n=259)** underwent neovaginal reconstruction
 - 32.0 years** median age
- Incidence of neovaginal reconstruction has been significantly increasing from 11.3 to 46.5 per million procedures (p<.001)
- 276 minutes** (IQR 191-366) median operative duration
- 5.0 days** (IQR 3.07.0) median postoperative admission
- 14.7% overall** adverse event rate
 - 3.9%** related readmission
 - 5.8%** related reoperation
 - 7.3%** dehiscence
 - 3.5%** bleeding requiring transfusion
 - 2.3%** superficial incisional infection
 - 1.9%** urinary tract infection
- On multivariate regression, **dehiscence** was significantly associated with
 - history of smoking cigarettes within the past year (p=.033, AOR=5.6)
 - concurrent penectomy (p=.050, AOR=2.9)
- On multivariate regression, **bleeding requiring transfusion** was significantly associated with
 - hypertension (p=.010, AOR=20.4)
 - older age at surgery (p=.050, AOR=1.5 per +5 years)



- Bleeding requiring transfusion** all occurred at 1.0 (IQR 0.0-2.0) days postoperatively **while patients were still admitted** (100.0%, n=9 of 9)
- Urinary tract infections likewise mostly occurred in the outpatient setting (60.0%, n=3 of 5) at 10.0 (IQR 7.0-16.0) days postoperatively.
- Superficial incisional infections** occurred at 18.0 (IQR 12.0-18.0) days postoperatively in the **outpatient setting** (83.3%, n=5 of 6), of which the **minority had to be readmitted** (40.0%, n=2 of 5).
- Dehiscence** after neovaginal reconstruction occurred at 14.0 (IQR 13.0-18.0) days postoperatively overwhelmingly in the **outpatient setting** (89.5%, n=17 of 19), and of these patients a **minority had to be readmitted** (35.3%, n=6 of 17).

Conclusions

Dehiscence after vaginoplasty is associated with cigarette smoking, and excessive bleeding after vaginoplasty is associated with hypertension and older age at surgery.