

The Year in Review - surgery -

Prof. Dr. med. J. Heß

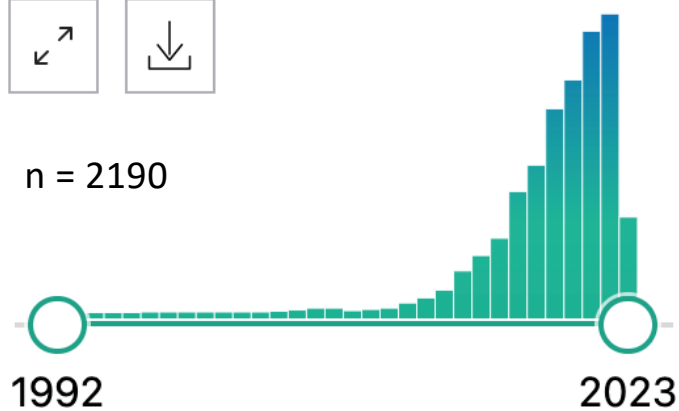
EPATH

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RESULTS BY YEAR



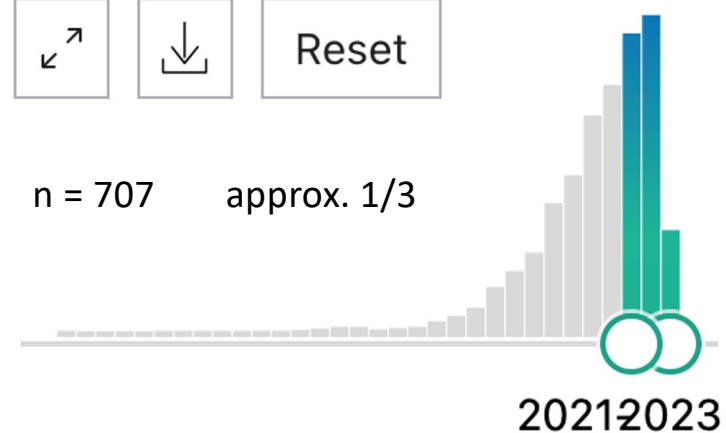
n = 2190



RESULTS BY YEAR



n = 707 approx. 1/3





JAMA Surg. 2021 Jul; 156(7): 611–618.

Published online 2021 Apr 28. doi: 10.1001/jamasurg.2021.0952: 10.1001/jamasurg.2021.0952

Association Between Gender-Affirming Surgeries and Mental Health Outcomes

[Anthony N. Almazan](#), BA^{1,2} and [Alex S. Keuroghlian](#), MD, MPH^{1,3,4}

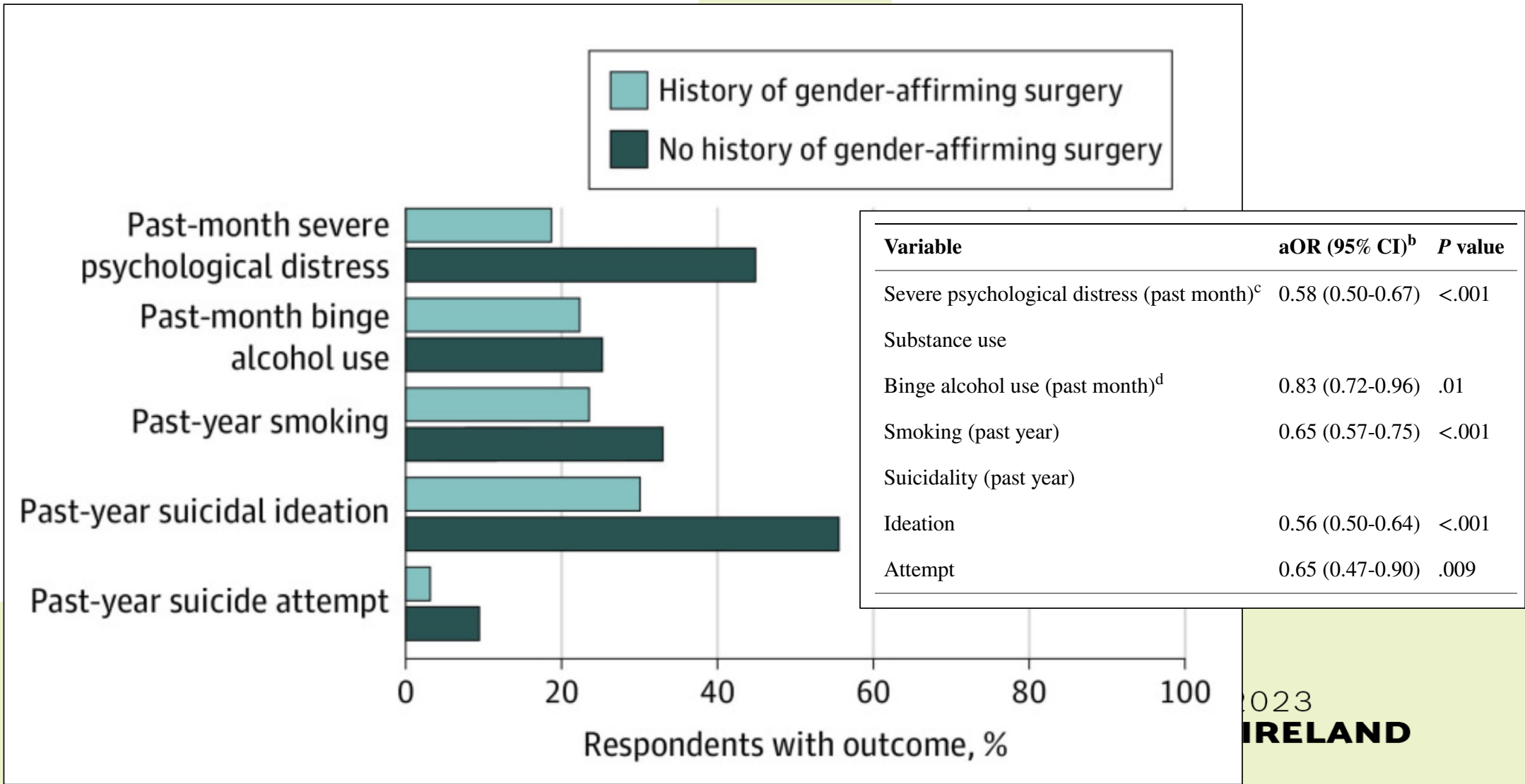
2015 US Transgender Survey (a total 27,715 TGD)

- exposure group: endorsed undergoing 1 or more types of GAS at least 2 years prior to survey – 13%
- comparison group: endorsed a desire for 1 or more types of GAS but denied undergoing any – 59%
- respondents were excluded if they did not report desire for any GAS – 28 %

- 38.8% identified as transgender women
- 32.5% identified as transgender men
- 26.6% identified as nonbinary

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Association Between Gender-Affirming Surgeries and Mental Health Outcomes



Association Between Gender-Affirming Surgeries and Mental Health Outcomes

Association Between Degree of Surgical Gender Affirmation and Mental Health Outcomes^a

Variable	Received some desired surgeries (n = 3311) ^b		Received all desired surgeries (n = 2448) ^b	
	aOR (95% CI)	P value	aOR (95% CI)	P value
Severe psychological distress (past month) ^c	0.70 (0.60-0.81)	<.001	0.47 (0.39-0.56)	<.001
Substance use				
Binge alcohol use (past month) ^d	0.97 (0.84-1.11)	.63	0.75 (0.64-0.87)	<.001
Smoking (past year)	0.75 (0.66-0.86)	<.001	0.58 (0.49-0.68)	<.001
Suicidality (past year)				
Ideation	0.72 (0.63-0.81)	<.001	0.44 (0.38-0.51)	<.001
Attempt	0.70 (0.53-0.93)	.01	0.44 (0.28-0.70)	<.001

Abbreviation: aOR, adjusted odds ratio.

> undergoing all desired surgeries significantly reduced the odds of each adverse mental health outcome

> these reductions were more profound than those among respondents who had received only some desired surgeries

Association Between Mental Health Conditions and Postoperative Complications After Gender-Affirming Surgery

Khusid et al. JAMA Surgery Dec 2022 Volume 157, Number 12

Characteristic	Patients, No. (%)				
	Overall (N = 4318)	Postoperative complication		Mental health condition	
		Yes	No	Yes	No
Total No. of patients	4318 (100.0)	473 (11.0)	3845 (89.0)	2641 (61.2)	1677 (38.8)
Age, mean (SD), y	35.8 (16.1)	40.3 (17.4)	35.2 (15.8)	35.5 (15.8)	36.1 (16.6)
Mental health condition					
Yes	2641 (61.2)	339 (12.8)	2302 (87.2)	NA	NA
No	1677 (38.8)	134 (8.0)	1543 (92.0)	NA	NA
Sex assigned at birth					
Female	2907 (67.3)	$(p < 0.01)$		1774 (61.0)	1133 (39.0)
Male	1411 (32.7)	149 (10.6)	1262 (89.4)	867 (61.4)	544 (38.6)
Charlson Comorbidity Index ^b					
0	1720 (39.8)	128 (7.4)	1592 (92.6)	752 (43.7)	968 (56.3)
1	1253 (29.0)	106 (8.5)	1147 (91.5)	853 (68.1)	400 (31.9)
2	636 (14.7)	83 (13.1)	553 (86.9)	495 (77.8)	141 (22.2)
≥3	709 (16.4)	156 (22.0)	553 (78.0)	541 (76.3)	168 (23.7)
Procedure type					
Mastectomy	1452 (33.6)	110 (7.6)	1342 (92.4)	866 (59.6)	586 (40.4)
Breast augmentation	751 (17.4)	44 (5.9)	707 (94.1)	442 (58.9)	309 (41.1)
Hysterectomy	729 (16.9)	115 (15.8)	614 (84.2)	456 (62.6)	273 (37.4)
Orchiectomy	428 (9.9)	34 (7.9)	394 (92.1)	272 (63.6)	156 (36.4)
Other ^c	958 (22.2)	170 (17.7)	788 (82.3)	605 (63.2)	353 (36.8)

Variable	Odds ratio (95% CI)
Patient has established mental health condition	
No	1 [Reference]
Yes	1.43 (1.15-1.79)
Age, every 10-y increase	1.09 (1.07-1.11)
Sex assigned at birth	$(p = 0.002)$
Female	1 [Reference]
Male	0.83 (0.67-1.05)
Insurance	
Commercial	1 [Reference]
Medicaid	1.36 (1.03-1.78)
Medicare	0.98 (0.66-1.43)
Other government ^a	1.16 (0.33-3.16)
Cash	NA
Region	
Midwest	1 [Reference]
Northeast	0.74 (0.56-0.97)
South	0.96 (0.73-1.26)
West	0.85 (0.64-1.14)
Charlson Comorbidity Index, every 1 comorbidity increase ^b	1.16 (1.11-1.21)
Procedure type	
Other ^c	1 [Reference]
Mastectomy	0.82 (0.62-1.08)
Breast augmentation	0.61 (0.43-0.85)
Hysterectomy	1.40 (1.07-1.81)
Orchiectomy	0.58 (0.38-0.84)

PAT



ELSEVIER



Review

A systematic review and meta-analysis of urethral complications and outcomes in transgender men



Ching-Hsuan Hu^{a,*}, Chun-Ju Chang^a, Ssu-Wei Wang^a,
Ke-Vin Chang^b

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Table 3 Subgroup analysis for urethral complications and outcomes.

	Event rate (%)	95% CI (%)	I ² (%)	No. of studies	No. of patients
Urethral fistula	23.9	18.1-30.8	79.93	21	322
Tube-in-tube	25.4	15.7-38.3	90.77	8	224
Prelaminated/staged flap	29.8	20.9-40.5	46.50	9	66
Second flap	16.1	8.9-27.3	53.21	6	32
Urethral stricture/stenosis⁺	25.0	16.7-35.5	88.36	19	289
Tube-in-tube	15.5	11.0-21.4	67.38	7	145
Prelaminated /staged flap	40.7	26.7-56.4	66.76	8	81
Second flap	18.3	3.7-56.5	91.85	6	63
Need of revision surgery	30.4	23.0-39.0	77.39	16	243
Tube-in-tube	25.4	17.4-35.7	69.37	5	107
Prelaminated /staged flap	39.6	27.0-53.9	65.23	7	89
Second flap	25.1	14.1-40.5	69.66	6	47
Voiding while standing⁺	91.5	80.7-96.6	83.29	13	745
Tube-in-tube	96.2	43.1-99.9	92.36	5	477
Prelaminated/staged flap	94.3	78.7-98.7	44.54	5	112
Second flap	83.5	66.3-92.9	79.03	5	156
Non-urethral complications	19.3	13.1-27.5	82.8	19	1284
Tube-in-tube	14.6	8.5-24.1	87.9	6	958
Prelaminated/staged flap	30.8	12.7-57.7	77.6	7	129
Second flap	16.1	8.5-24.1	53.2	7	197
Donor site morbidity	13.7	9.3-19.8	67.4	16	909
Tube-in-tube	13.7	8.2-22.1	72.9	5	590
Prelaminated/staged flap	10.6	3.1-30.4	70.2	6	171
Second flap	15.6	10.3-22.7	0	5	148
Tactile/rogenous sensation	88.0	79.3-93.4	73.6	11	589
Tube-in-tube	87.2	70.0-95.2	77.5	4	257
Prelaminated/staged flap	98.1	93.7-99.5	0	4	206
Second flap	72.8	62.2-81.3	18.44	3	126
Patient-reported outcome	90.5	83.0-94.9	74.9	14	624
Tube-in-tube	95.1	89.7-97.7	25.9	5	265
Prelaminated/staged flap	88.4	72.8-95.6	72.6	6	233
Second flap	83.7	62.9-94.0	66.8	3	126
Penile implant complication	27.9	15.9-44.1	81.2	7	360
Tube-in-tube	30.7	15.6-51.5	88.5	3	276
Prelaminated/staged flap	0.6	2.5-16.2	0	1	61
Second flap	39.2	21.7-60.1	0	3	23


⁺ Revision surgery related to urethral fistula or stricture/stenosis.

BJU Int 2022; 129: 63–71 doi:10.1111/bju.15500

Original Article

BJUI
BJU International

Surgical outcomes and proposal for a treatment algorithm for urethral strictures in transgender men

Freek P. W. de Rooij^{1,2,*} , Femke R. M. Peters^{1,*}, Brechje L. Ronkes^{1,2}, Wouter B. van der Sluis^{2,3}, Muhammed Al-Tamimi³, R. Jeroen A. van Moorselaar¹, Mark-Bram Bouman^{2,3} and Garry L. S. Pigot^{1,2}

¹Department of Urology, Amsterdam University Medical Center, ²Center of Expertise on Gender Dysphoria at the Amsterdam University Medical Center, and ³Department of Plastic, Reconstructive and Hand Surgery, Amsterdam University Medical Center, Location VUmc, Amsterdam, the Netherlands

*These authors contributed equally to this paper.

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Surgical outcomes and proposal for a treatment algorithm for urethral strictures in transgender men

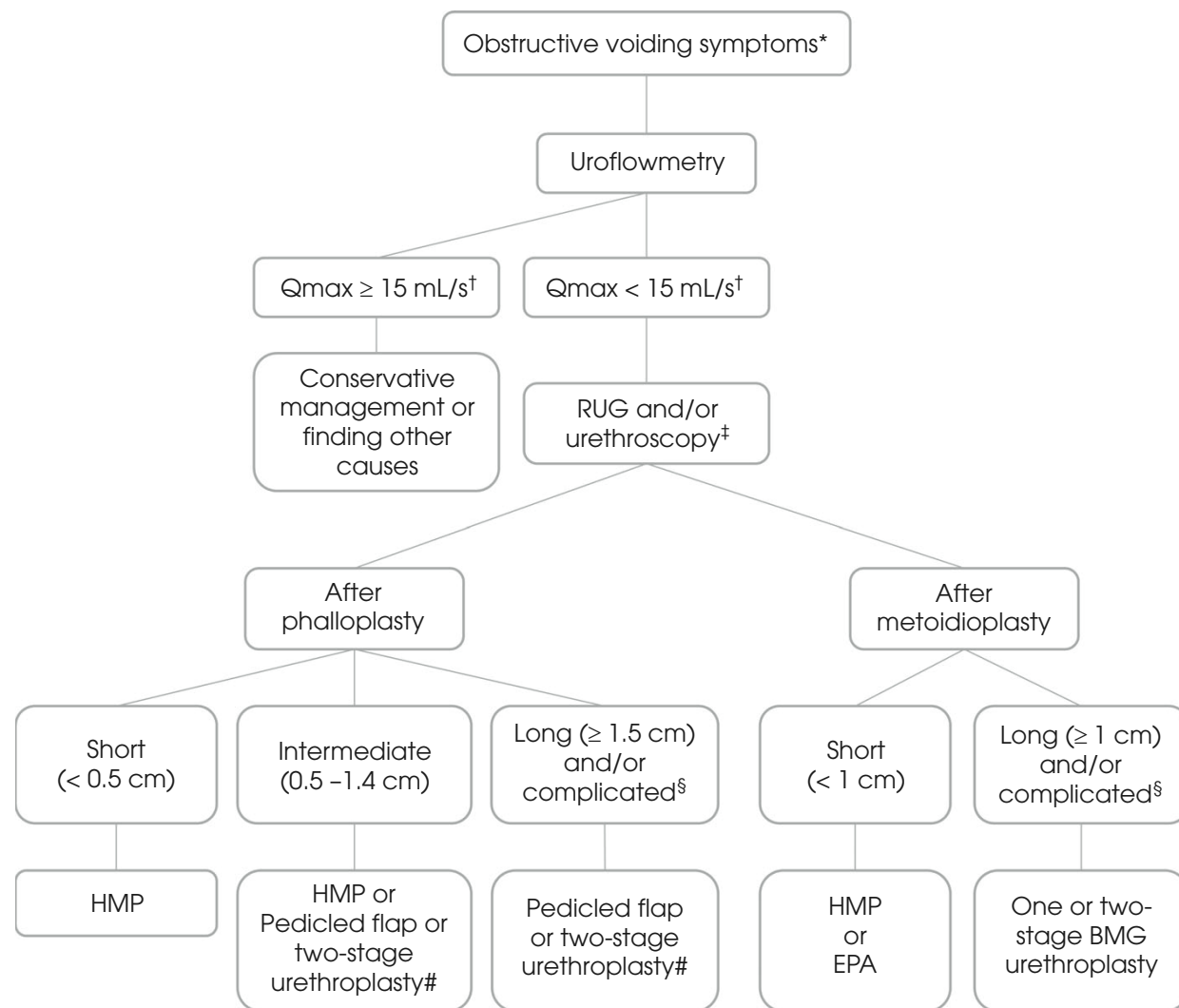
69% were able to void while standing

- 60% after one
- 20% after two
- 6% after three
- 8% after four
- 4% after five or
- 2% after seven procedures

highest success rates:

- short urethral strictures: Heineke-Mikulicz procedure
- longer or more complicated urethral strictures: two-stage with graft, two-stage without graft, pedicled flap and single-stage graft urethroplasties

grafts: buccal mucosa / full-thickness skin



TRANSGENDER HEALTH

'Modified Phallourethroplasty' as a Surgical Alternative to Phalloplasty With Urethral Lengthening: Technique, How We Present This Option to Patients, and Clinical Outcomes

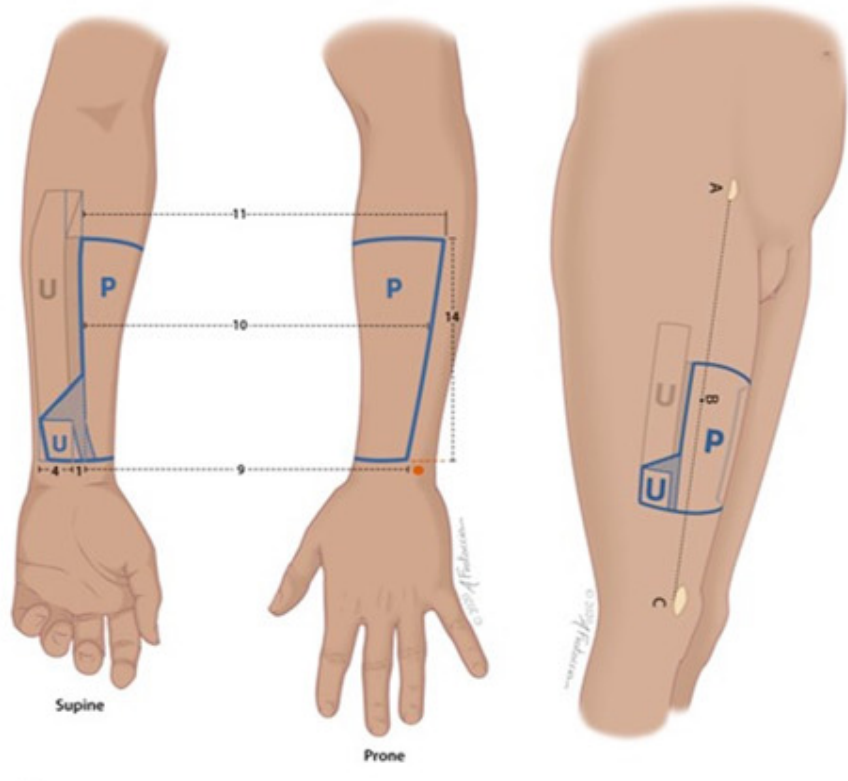


Shannon M. Smith, MD, MPH,^{1,3} Nance Yuan, MD,² Grace Lee, PA-C,^{1,3} Jenna Stelmar, BS,¹ Edward Ray, MD,^{3,4} and Maurice M. Garcia, MD, MAS^{1,3,5}

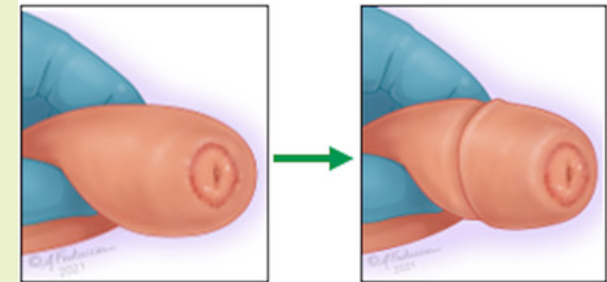
„Modified Phallourethroplasty“ as a surgical alternative to phalloplasty with urethral lengthening

Stage I

a.



b.



Pre-glansplasty

Post-glansplasty

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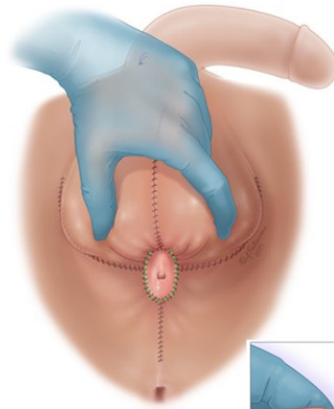
‘Modified Phallourethroplasty’ as a surgical alternative to phalloplasty with urethral lengthening

a.

1. Vulvectomy
2. Vaginectomy
3. Glansplasty
4. Clitoris transposition
5. Perineal urethroplasty
6. Scroto-perineoplasty

c.

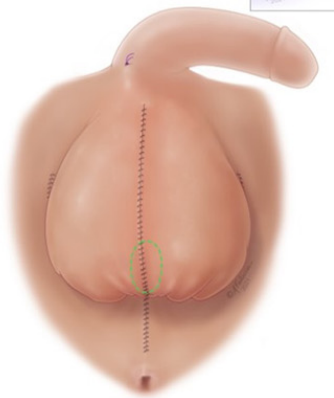
Stage II



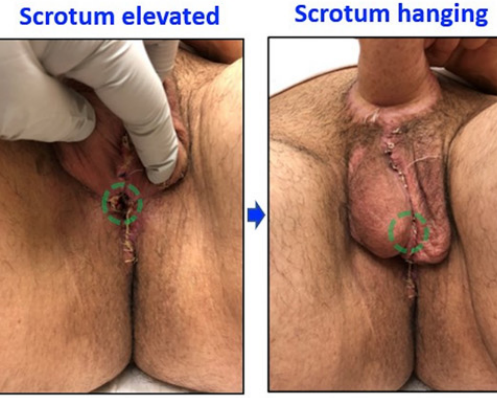
e.



d.



f.



2023
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Table 3. Ranked priority factors among patients who elected P-UL over P+UL

Decision-making factor	Mean ranking	Std. dev.	Highest ranking (1–9)	Lowest ranking (1–9)
Elimination of risks of complications from +UL	2.7	1.5	1	5
Normal appearing urethral opening at tip of penis	3.6	1.8	1	6
Expected decreased risk of need for revision surgery	3.6	2.1	1	7
Ability to avoid using the forearm as the flap donor site	3.9	2.6	1	8
Urethral opening in perineum is well-hidden behind scrotum (ie, minimally visible)	4.7	2.7	1	8
Expected decreased total number of clinic visits	6	1.9	3	9
Decreased risk of delay for penile prosthesis implant	6.7	1.5	4	9
Possibility of being able to stand to urinate over a toilet	6.9	2.6	2	9
Elimination of need for suprapubic tube	7	1.4	5	9

Continuing perioperative estrogen therapy does not increase venous thromboembolic events in transgender patients: a systematic review and meta-analysis

J. BADREDDINE¹, M.H. LEE², K. MISHRA³, R. POPE¹, J.Y. KIM², S.H. HONG⁴, S. GUPTA¹, J.M. SONG⁵, J.I. SHIN⁶, R.A. GHAYDA¹



International Journal of
Molecular Sciences



Review

The Role of Sex Hormones in Pain-Related Conditions

Onella Athnaiel^{1,2}, Santiago Cantillo¹ , Stephania Paredes¹  and Nebojsa Nick Knezevic^{1,3,4,*} 

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SURGERY

An Alternative Option for Gender-Affirming Revision Vaginoplasty: The Tubularized Urachus-Peritoneal Hinge Flap



Shannon M. Smith, MD, MPH,^{1,2} Nance Yuan, MD,³ Jenna Stelmar, BS,¹ Grace Lee PA-C,¹ Amit Gupta, MD,⁴ Hyung L. Kim, MD,² and Maurice M. Garcia, MD, MAS^{1,2,5}

Surgical Endoscopy (2021) 35:5643–5654
<https://doi.org/10.1007/s00464-020-08078-2>



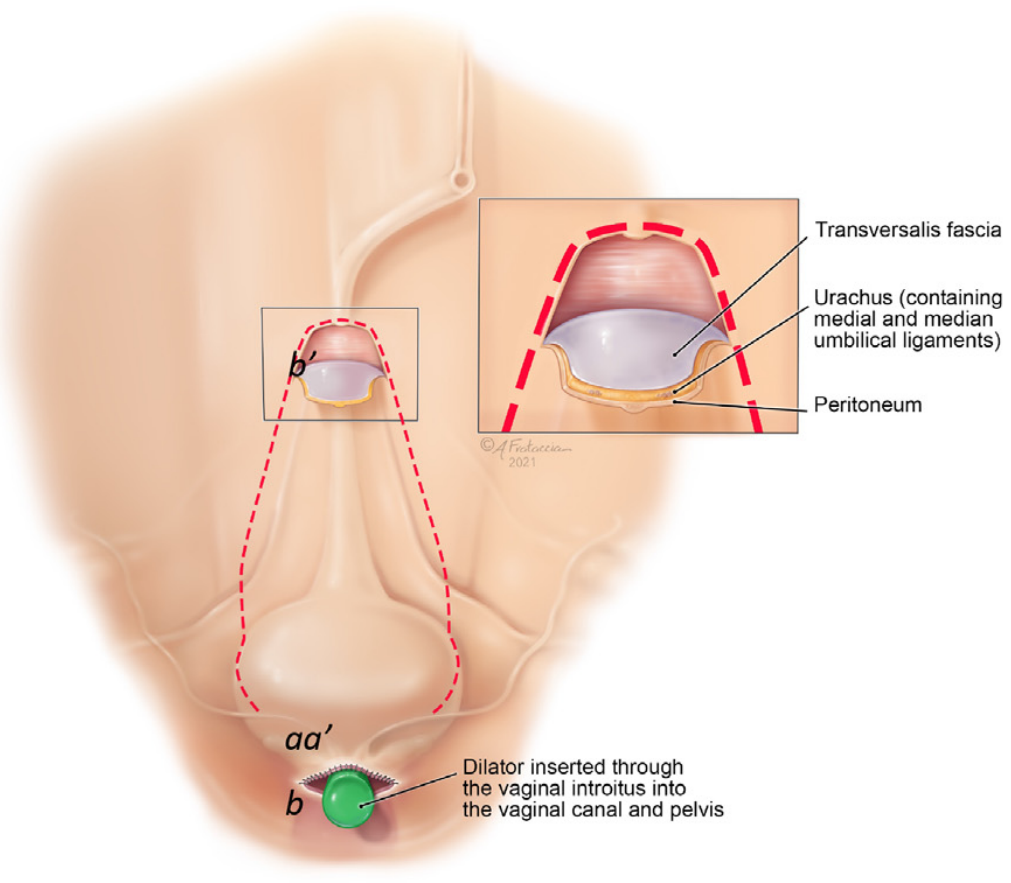
Use of right colon vaginoplasty in gender affirming surgery: proposed advantages, review of technique, and outcomes

Maurice M. Garcia^{1,2,3} · Wesley Shen⁵ · Rachel Zhu⁵ · Isabella Stettler⁵ · Michael Zaliznyak^{3,4} · Moshe Barnajian^{3,5} · Jason Cohen^{3,5} · Ankit Sarin⁶ · Yosef Nasser^{3,5}

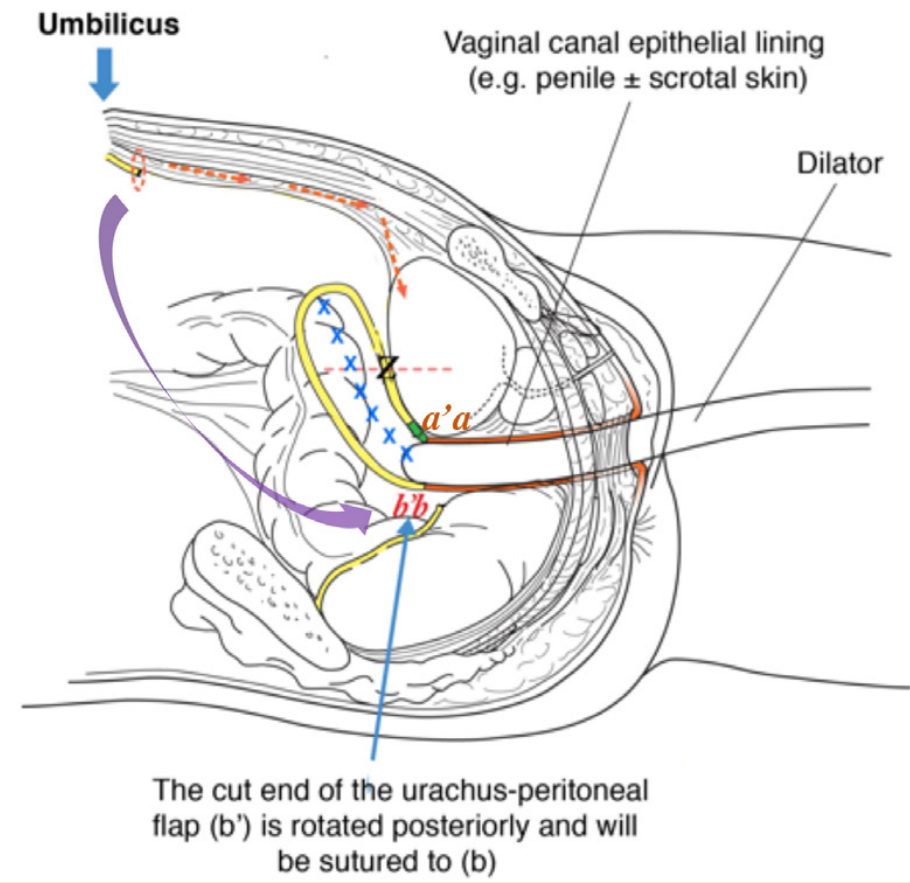
An Alternative Option for Gender-Affirming Revision Vaginoplasty: The Tubularized Urachus-Peritoneal Hinge Flap

 Check for updates

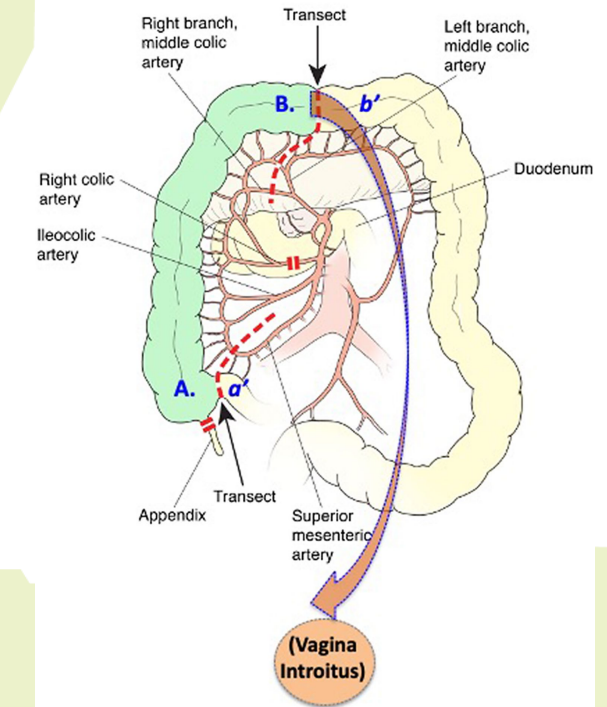
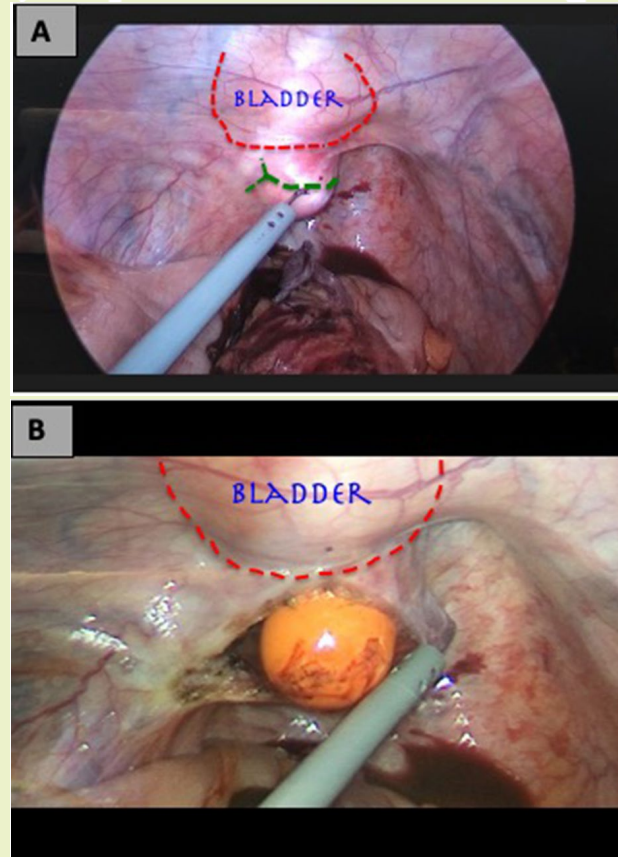
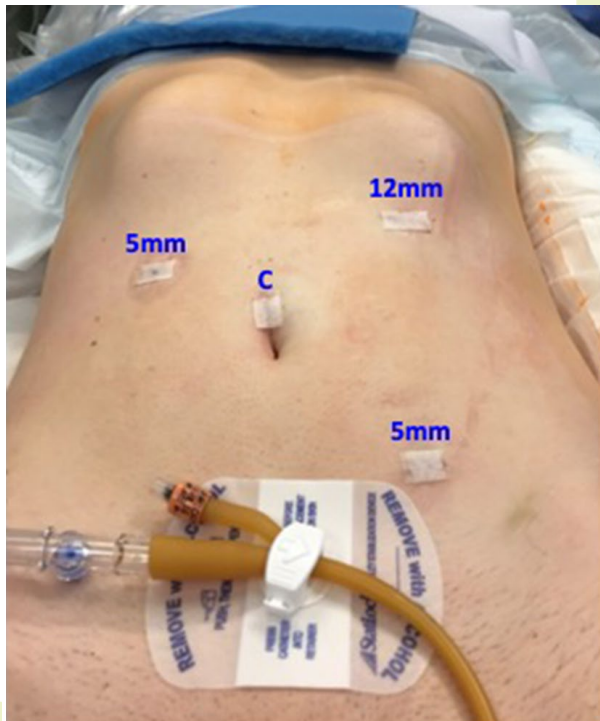
A.



B.



Use of right colon vaginoplasty in gender affirming surgery: proposed advantages, review of technique, and outcomes

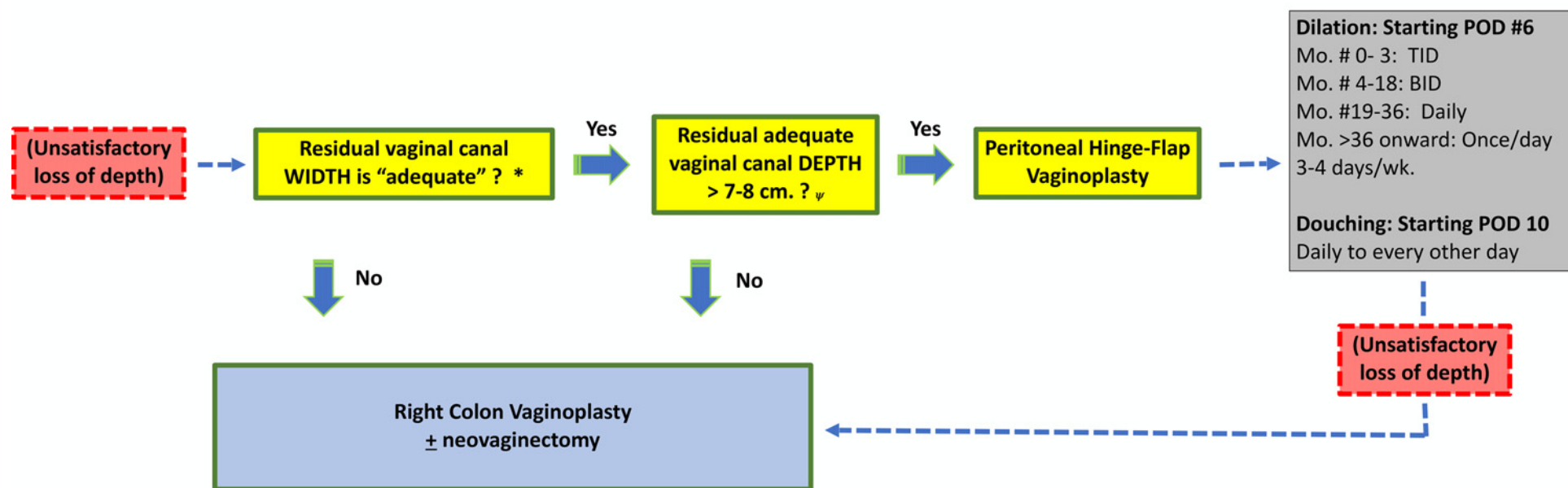


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An Alternative Option for Gender-Affirming Revision Vaginoplasty: The Tubularized Urachus-Peritoneal Hinge Flap

Check for updates


Loss of Vaginal Depth: Peritoneal Vaginoplasty vs. Intestinal Vaginoplasty

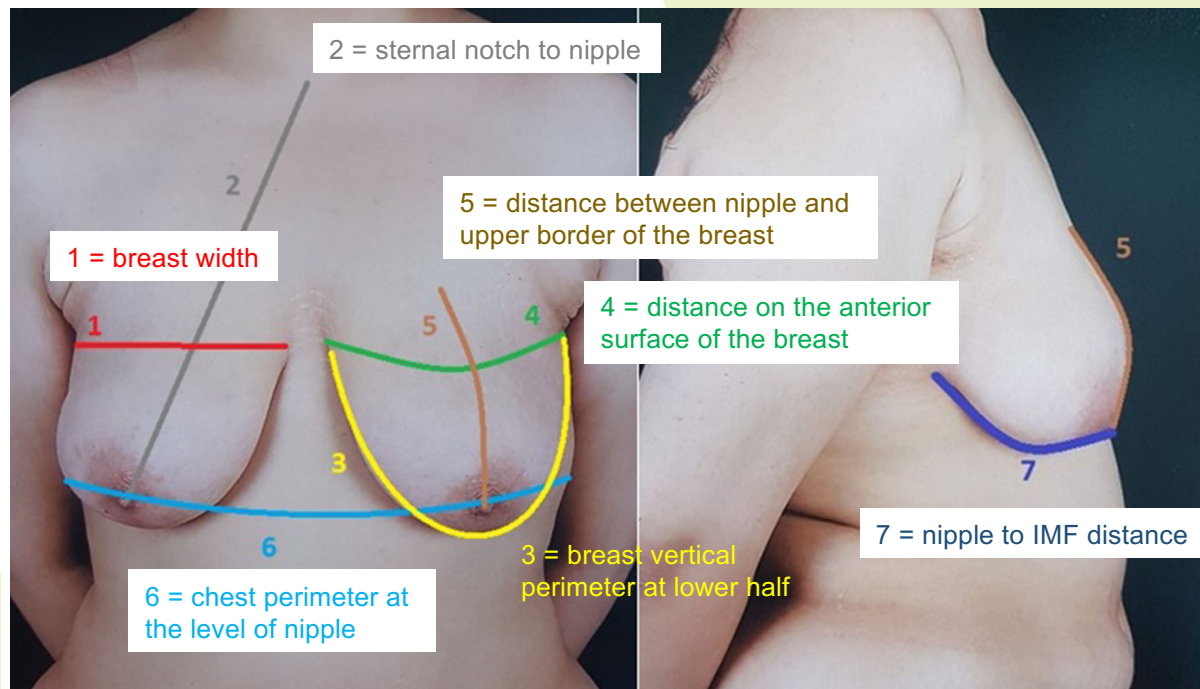


* Satisfactorily accommodates dilator circumference $\geq \sim 11-12$ cm., OR \geq regular partner's penis)

ψ 7-8 cm. is *stretch limit* to which the anterior and posterior peritoneum incision-edges at the recto-vesical fold can be pulled towards the vaginal introitus

A Machine Learning-Based Model for Breast Volume Prediction Using Preoperative Anthropometric Measurements

Mohammadreza Akhoondinasab¹ · Yousef shafaei¹ · Amirhosein Rahmani¹  · Hamidreza Keshavarz²




$$\begin{aligned} \text{Breast volume} = & (\text{breast width}) \times 24.69 \\ & + (\text{nipple to IMF}) \times 49.03 \\ & - (\text{sternal notch to nipple}) \times 1.34 \\ & + (\text{anterior axillary line to medial border}) \\ & \times 6.57 - (\text{upper pole}) \times 1.27 \\ & - (\text{chest perimeter IMF}) \times 5.63 \\ & + (\text{chest perimeter nipple}) \times 10.40 \\ & + (\text{breast vertical perimeter at lower half}) \\ & \times 9.20 - 1133.74 \end{aligned}$$

$$\begin{aligned} \text{Estimated Weight} = & (\text{Breast width}) \times 22.43 \\ & + (\text{Nipple to IMF}) \times 47.12 \\ & - (\text{Sternal notch to nipple}) \times 0.34 \\ & + (\text{Anterior axillary line to medial border}) \\ & \times 5.66 - (\text{upper pole}) \times 0.46 \\ & - (\text{chest perimeter IMF}) \times 6.99 \\ & + (\text{chest perimeter nipple}) \times 10.67 \\ & + (\text{BVPL}) \times 7.746 - 996.35 \end{aligned}$$

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A Machine Learning-Based Model for Breast Volume Prediction Using Preoperative Anthropometric Measurements

Mohammadreza Akhoondinasab¹ · Yousef shafaei¹ · Amirhosein Rahmani¹  · Hamidreza Keshavarz²

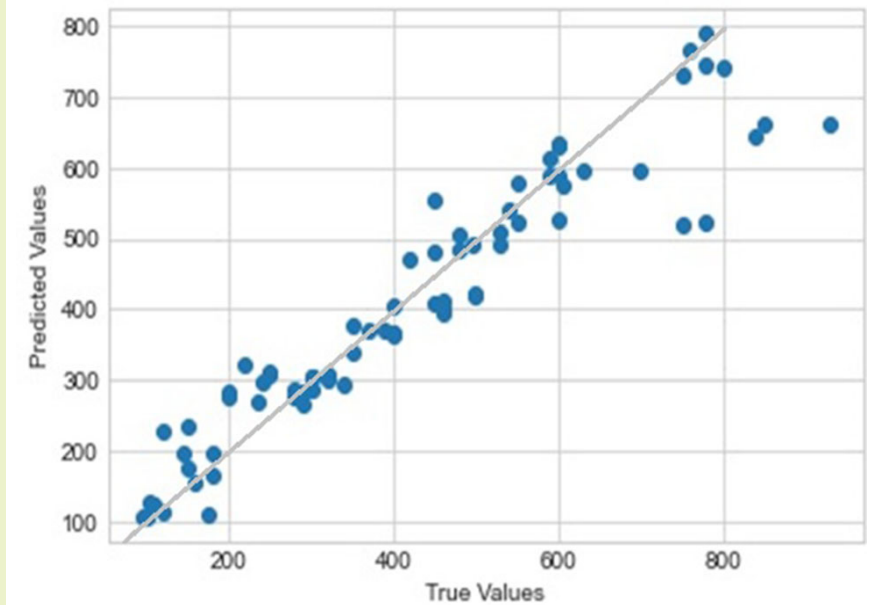
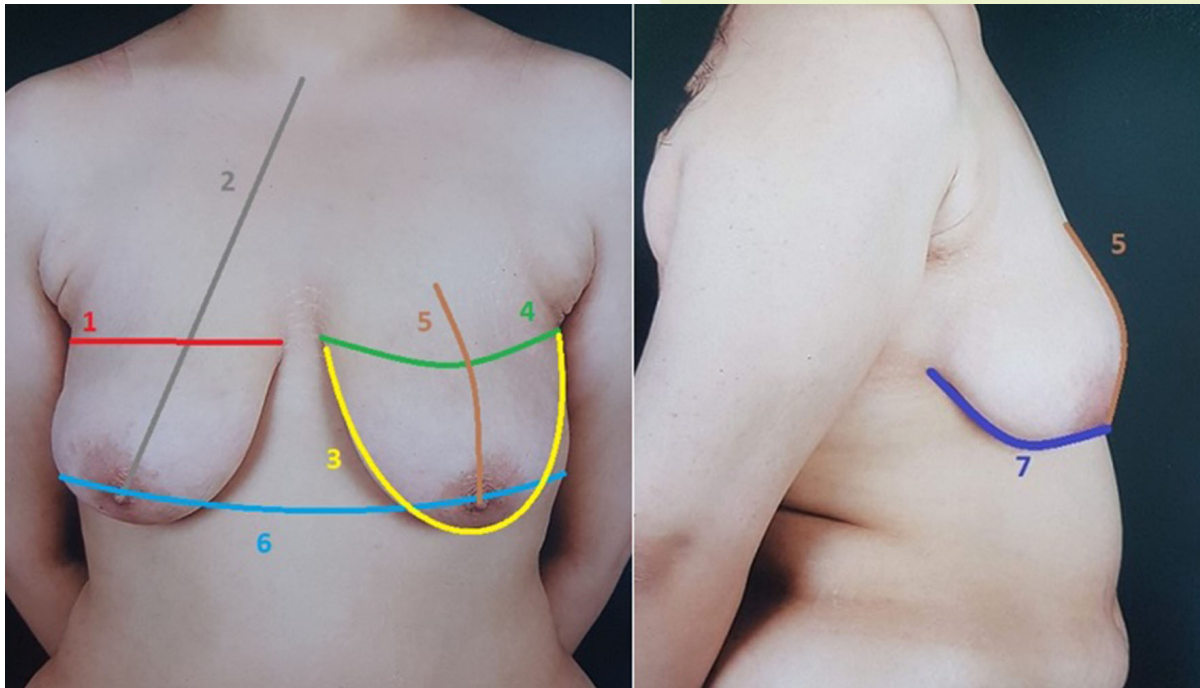


Fig. 3 Predicted and true volume of mastectomy specimens

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Perception of femininity and attractiveness in Facial Feminization Surgery

Ann Hui Ching^{1,2}, Allister Hirschman³, Xiaona Lu¹, Seija Maniskas^{1,4}, Antonio J. Forte⁵, Michael Alperovich¹, John A. Persing¹

Study cohort:

- 104 transgender females & 192 non-transgender females (completion rate: 48.4%)
- 23 plastic surgeons who perform FFS (survey response rate: 31.5%)

Five virtually-modified forms of three facial features: a) nasal tip width b) nasal supratip angle c) mandibular gonial angles

modifications were made to the facial features on a 3D photograph of a male Caucasian individual, aged 28 years, without any hormone therapy or craniofacial surgery.

Respondents were presented progressive degrees of change of the facial features

Ranking of images based on personal perceptions of femininity and attractiveness
(1 = most feminine / attractive to 5 = least feminine / attractive)

- 1) facial features were studied in isolation: respondents were asked to choose the most “feminine” and most “attractive”
- 2) options 1, 3, 5 for each of the three facial features were combined, to create 9 composite images

Perception of femininity and attractiveness in Facial Feminization Surgery



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Ann Transl Med 2021;9(7):602

Perception of femininity and attractiveness in Facial Feminization Surgery

Anatomic feature	Transgender female	Non-transgender female		Plastic surgeon	
		Mean (SD)	P value	Mean (SD)	P value
Nasal tip width					
Most feminine	2.0 (0.9)	2.0 (1.1)	0.667	1.8 (0.7)	0.379
Most attractive	2.2 (0.9)	2.7 (1.1)	<0.001**	2.2 (0.8)	0.880
Ideal surgical outcome	2.1 (0.9)	–	–	2.1 (0.6)	0.983
Supratip break					
Most feminine	2.6 (1.0)	3.0 (1.1)	0.003*	2.8 (0.7)	0.420
Most attractive	3.0 (0.7)	3.4 (0.8)	0.003*	3.0 (0.5)	0.730
Ideal surgical outcome	3.0 (0.7)	–	–	2.9 (0.5)	0.510
Gonial angle					
Most feminine	2.0 (1.1)	2.2 (1.4)	0.023*	1.4 (0.6)	0.007*
Most attractive	2.1 (1.1)	2.5 (1.2)	0.020*	1.9 (0.9)	0.203
Ideal surgical outcome	2.1 (1.1)	–	–	1.7 (0.8)	0.046*

Transgender female respondents differed from non-transgender female respondents in terms of perceptions of femininity and attractiveness and selected similar characteristics to the plastic surgeon group.

Transgender female respondents perceive a smaller nasal tip width, more acute supratip angle, and more obtuse mandibular angles are more “feminine” and “attractive” compared to non-transgender female respondents.

Social Perception of Facial Feminization Surgery Outcomes: Does Gender Identity Alter Gaze?



Figure 1. Example study image of a 34-year-old transwoman; FFS procedures: forehead and simultaneous hair transplant, rhinoplasty, jaw, and chin demonstrating the standard frontal (A) and profile (B) view photographs shown to participants, as well as the highlighted areas of interest (AOIs).



Figure 2. Representative gaze fixation distribution for cisgender participants (A) and transgender participants (B) on a study image of a 34-year-old transwoman; FFS procedures: forehead and simultaneous hair transplant, rhinoplasty, jaw, and chin.

Gender identity influences subconscious attention and gaze on female faces

Transgender participants spent more time evaluating the forehead/brow, buccal/mandibular regions, and chin

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Shanique et al. Aesth. Surg. J. 2021

OPEN



ORIGINAL ARTICLE

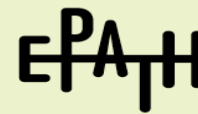
Gender-Affirming Surgery

Evaluating the Quality and Reliability of Gender-affirming Surgery Videos on YouTube and TikTok

Query for GA top surgery, metoidioplasty, phalloplasty, breast augmentation, and vaginoplasty

Quality of video content was analyzed by the DISCERN scale

275 YouTube videos and 55 TikTok videos



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Song et al. PRS Global Open May 2022

Evaluating the Quality and Reliability of Gender-affirming Surgery Videos on YouTube and TikTok

Variable (no.)	DISCERN* Overall Score (Mean ± SD)	DISCERN Reliability Score (Mean ± SD)	DISCERN Quality Score (Mean ± SD)
Type of GAS			
Top surgery (131)	2.98±1.2	3.15±0.6	2.97±1.0
Metoidioplasty (73)	2.51±0.9	3.15±0.6	3.13±0.9
Phalloplasty (41)	2.13±0.7	2.98±0.5	3.24±0.6
Breast aug (33)	2.53±1.1	3.02±0.5	3.04±0.9
Vaginoplasty (52)	1.96±0.8	2.85±0.6	2.67±0.7
<i>P</i> value	<0.0001	0.02	0.02
Type of GAS			
Masculinizing† GAS (245)	2.85±1.1	3.22±0.6	3.32±0.8
Feminizing‡ GAS (85)	2.18±1.0	2.95±0.5	2.87±0.8
<i>P</i> value	<0.001	<0.001	<0.001
Type of GAS			
Chest surgery§ (164)	3.11±1.2	3.27±0.6	3.20±1.0
Genital surgery¶ (166)	2.25±0.9	3.06±0.6	3.15±0.7
<i>P</i> value	<0.001	0.001	0.6
Type of user account			
Patient (235)	2.48±1	2.99±0.5	3.04±0.9
MD (38)	2.75±1.2	3.01±0.5	2.84±0.9
Healthcare group (24)	2.17±0.9	3.03±0.7	2.82±0.8
Non-MD (10)	4±1.3	3.56±0.7	3.24±0.6
Academic institution (13)	3.14±1.5	3.89±0.9	3.29±1.0
Medical journal (4)	2.33±1.2	3.5±1	2.38±0.8
Device company (3)	3.5±1	3.69±0.6	2.93±1.1
Academic society (2)	2±1.7	3.33±0.4	2.81±1.5
<i>P</i> value	0.0001	<0.0001	0.5
Type of video category			
Patient experience (191)	2.43±1.0	2.98±0.5	3.02±0.9
Patient education (78)	2.73±1.2	2.16±0.6	2.92±0.9
Physician education (16)	3.64±1.2	4.19±0.7	3.62±0.8
Operation (21)	2.39±1.1	2.88±0.3	2.63±0.9
Advocacy (2)	2.5±0.7	3.31±0.6	3±0.4
Self-promotion (2)	2	3	2.71±0.8
<i>P</i> value	0.001	<0.001	0.04
Social media platforms			
YouTube (275)	2.63±1.1	3.13±0.6	3.17±0.8
TikTok (55)	2.14±1.0	2.76±0.4	2.15±0.8
<i>P</i> value	0.003	<0.001	<0.001



A movie poster for "Back to the Future". The top half features a scene with Marty McFly (Michael J. Fox) and Doc Brown (Christopher Lloyd). Marty is on the left, wearing a brown leather jacket and goggles, looking surprised. Doc is on the right, wearing a white lab coat, looking equally surprised. They are in a dark, futuristic setting with blue light rays. Below the characters is the title "BACK TO THE FUTURE" in a large, stylized, 3D font with a red-to-yellow gradient and white outlines. The word "BACK" is on the top line, "TO" is on the second line, and "THE FUTURE" is on the third line. The background is dark blue with light rays emanating from behind the characters.

BACK TO THE FUTURE

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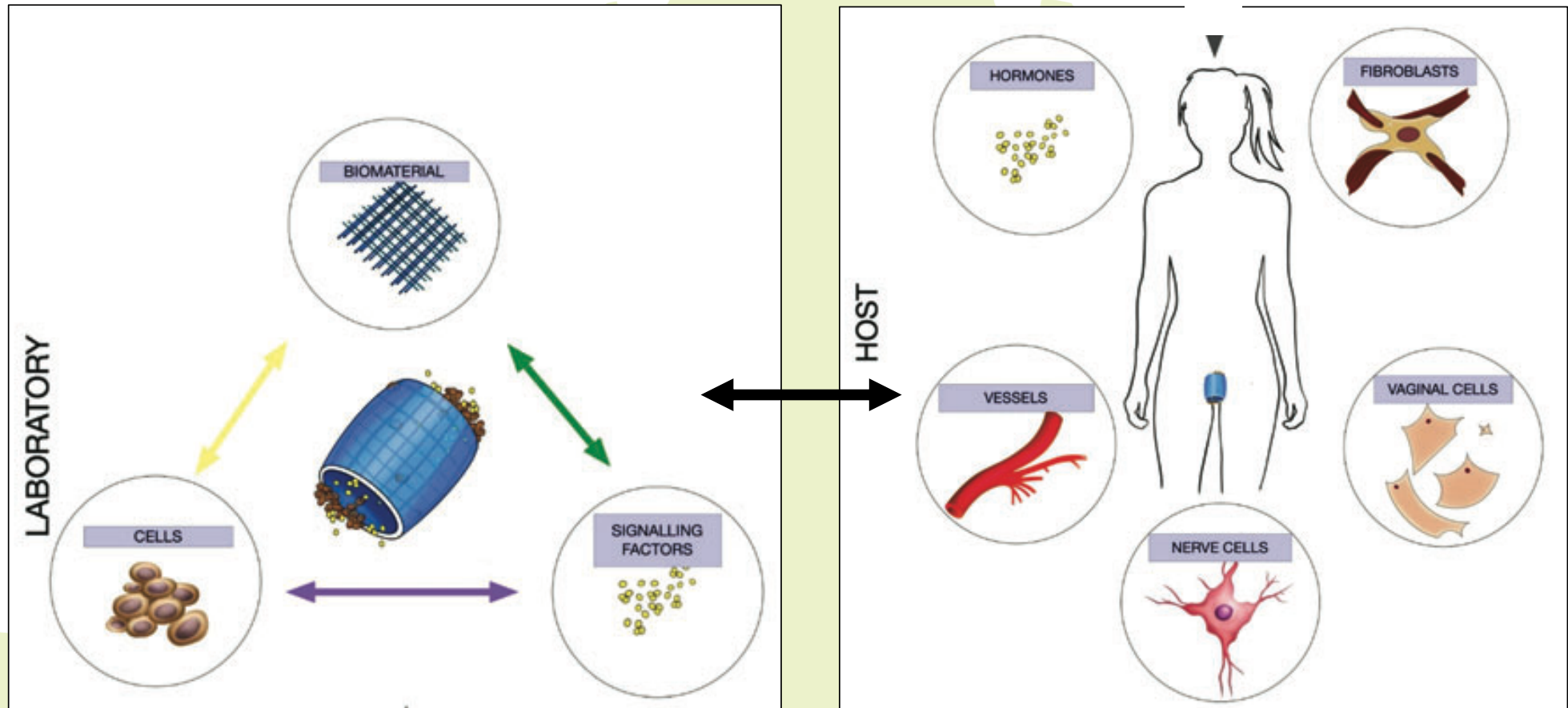
REVIEW ARTICLE

Tissue Engineering Neovagina for Vaginoplasty in Mayer–Rokitansky–Küster–Hauser Syndrome and Gender Dysphoria Patients: A Systematic Review

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Thank you for your time!



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