

PREDICTORS OF RE-STRICTURE AFTER GRAFT URETHROPLASTY

Hypothesis / aims of study

The objective of the study is to analyze the re-stricture rate in our patients who underwent to a graft urethroplasty and establish the risk factors that lead its appearance.

Study design, materials and methods

This is a prospective study in patients undergoing graft urethroplasty between 2010-2012 by the same surgeon, with a minimal follow-up of 24 months. We recorded: age at surgery, sex, length, location, number of previous surgeries (NPS), previous complications, previous urinary diversion (bladder or suprapubic catheter), previous peak flow (Qmax), prior voided volume (VV), prior postmicturition residual volume (PVR), postoperative complications, late complications, Qmax VV and subsequent PVR and stenosis-free time. Recurrence of stenosis was defined by Qmax (<12 mL/s) and/ or the need for additional treatment (dilation/ Sachse). Bivariate analysis (Fisher, T-test) and a predictive multivariate (multiple linear regression) to define the variables risk of recurrence.

Results

28 patients underwent surgery with mean age 50 ± 17.6 years, 2 (7.14%) women, with an average length of 3.51 ± 1.47 cm. Men affected in 13 (50%) bulbar urethra, 6 (23.08%) penile urethra, 1 (3.85%) meatal and 6 (23.08%) penis. Only 6 (21.46%) do not have had previous surgery. 9 (32.14 %) patients relapsed at a mean time of 12.8 ± 9.7 months.

A predictive model in male patients ($p < 0.001$, $R^2 = 0.62$, $AjR^2 = 0.56$) was obtained:

Variable	Coefficient	95% CI
Age	-0,37	-0,57 , -0,18
Length	-3,34	-5,92 , -0,76
NPS	5,15	1,06 , 9,24
Constant	46,8	34,4 , 59,0

Interpretation of results

The slightly higher re-stricture rate in our series is associated with the high number of referral patients with previous interventions (78.54%).

Concluding message

Younger patients and shorter length are associated with a better result (greater postoperative Qmax) and also with higher NPS. Classic factors such as location, prior Qmax or previous urinary diversion did not reach statistical significance.

Disclosures

Funding: NO **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** normal medical practice **Helsinki:** Yes **Informed Consent:** Yes