CORRESPONDENCE

Urethral Strictures—Etiology, Investigation and Treatments

by PD Dr. med. Stefan Tritschler, PD Dr. med. Alexander Roosen, Dr. med. Claudius Füllhase, Prof. Dr. med. Christian G. Stief, Prof. Dr. med. Herbert Rübben in volume 13/13

Ancient Healing Arts

In their article "Urethral Stricture: Etiology, Investigation and Treatments", the authors mention that endourological procedures were undertaken as early as in antiquity.

Since no further explanation was offered in the article, some additional details may not be altogether unwelcome. Heliodorus, a surgeon in the 1st/2nd century AD undertook the following procedure to remove proliferation related urethral obstructions—so-called synsarcoses (1): he used a thin, pointed instrument, the "skolops," which was sharpenedbehind the tip. In order to avoid hemorrhage, the penis was compressed behind the stenosis, stretched, and then the instrument was inserted. As soon as the tip had penetrated past the stenosis, circular movements were used to eliminate the stenosing membranes and, where these did not pass of their own account, they were removed by using a tweezer-like instrument, the "mydion."

Postoperative care consisted mainly of inserting bougies fashioned from papyrus and metal probes, often made from tin or the tube of a bird's feather. In such cases, a probe was inserted first, so as to avoid snapping.

On the one hand, such hollow probes made for uninhibited urination, while the papyrus, tightly wound around the probe and previously soaked in water, absorbed the wound secretions. The historian Diodorus (first century BC) reported another type of endourethral procedure (2). In this case, the glans penis was incised in a male pseudohermaphrodite with atresia of the urethral opening, and a connection to the urethra was created by inserting a silver tube. For the treatment of hypospadias of the urethra, a pseudo-Galenian text recommends (3): "Therapy consists primarily of an incision into the tip of the glans and insertion of a cannula."

DOI: 10.3238/arztebl.2013.0561a

REFERENCES

1. Raeder I: Oribasii collectionum medicarum reliquiae (Corpus medicorum graecorum VI, 2, 2). Leipzig/Berlin 1933; (Vol. IV): 60–61.
2. Walton FR: Diodorus of sicily. Cambridge (Mass.)/London 1980, (Vol. XI): 453–5.
3. Kühn CG: Claudii Galeni opera omnia Klaudiu Galenu hapanta / ed. curavit – Reprogr. Nachdr. der Ausgabe Leipzig 1821 – 1833. Leipzig 1827 (Nachdruck 1965 Hildesheim), Bd. XIV, S. 787.
4. Tritschler S, Roosen A, Füllhase C, Stief CG, Rübben H: Urethral strictures—etiology, investigation and treatments. Dtsch Arztebl Int 2013; 110(13): 220–6.

Dr. med. Malte Stoffregen
Berlin

Umbilical Cord Vein

In the article by Tritschler et al. (1), with its list of therapeutic alternatives to treat long urethral strictures with a free graft, total urethral replacement by using the umbilical cord vein should definitely be mentioned. In several male trauma cases, total or partial replacement of the urethra with human umbilical cord vein, harvested in the peripartum period or cryopreserved, was done successfully, without any graft rejection reaction (lowest antigen presentation) (2).

In longer urethral strictures, but also in those that are extremely narrow, partial or total replacement of the urethra by means of transplanting embryonic umbilical cord veins has yielded excellent long-term results, especially in patients with longer strictures, after the umbilical cord vein had already been tried and tested as a ureteric replacement in clinical use.

DOI: 10.3238/arztebl.2013.0561b

REFERENCES

1. Tritschler S, Roosen A, Füllhase C, Stief CG, Rübben H: Urethral strictures—etiology, investigation and treatments. Dtsch Arztebl Int 2013; 110(13): 220–6.
2. Klippel KF, Hohenfellner R: Nabelschnurvene als Nierenbecken und Harnleiterersatz: Erstmalige klinische Anwendung. Aktuelle Urologie 1983; 6: 14.

Prof. Dr. med. Karl-Friedrich Klippel
Bremen
prof.klippel@gmx.de

Self-Help

In view of the limited extent of conservative methods available to deal with urethral stricture, the too little-known (in my opinion) but still effective method of "self-hydraulic urethral dilation" warrants mentioning, by which male patients can themselves help prevent further surgery for recurrence. Patients hold the urethra closed—in a distal position to the stenosis—for up to a minute by applying pressure with two fingers; the build-up of pressure in the lumen will prompt a mild dilatation of the urethra.

DOI: 10.3238/arztebl.2013.0561c

REFERENCES

1. Pansadoro, V.. Endoskopische Behandlung von Rezidivstenosen der Pars membranacea der Urethra In: Aktuelle Urologie. – Stuttgart: Thieme 1981; 12: 227–31.
2. Tritschler S, Roosen A, Füllhase C, Stief CG, Rübben H: Urethral strictures—etiology, investigation and treatments. Dtsch Arztebl Int 2013; 110(13): 220–6.

Dr. med. Raimund Schmitz
Marburg
raimund.schmitz@uni-marburg.de

In Reply:

As far as I know, "self-hydraulic urethral dilation," as mentioned by Raimund Schmitz, has not been validated in scientific studies, and, crucially, the question is whether the pressure exerted by the bladder is sufficiently high to help expand the fibrosing tissue of a scarred urethra.

I am not aware of any scientific studies that have investigated the transplantation of embryonic umbilical cord vein, as mentioned by Professor Klippel, and I am sure it plays no real part in clinical routine. Such a procedure would surely have to be investigated in clinical studies.

Stoffregen has contributed interesting insights into the topic of the history of treatment for urethral strictures, which reminds us how long this topic has been the subject of discussion in medicine.

DOI: 10.3238/arztebl.2013.0562

REFERENCES

1. Tritschler S, Roosen A, Füllhase C, Stief CG, Rübben H: Urethral strictures—etiology, investigation and treatments. Dtsch Arztebl Int 2013; 110(13): 220–6.

PD Dr. med. Stefan Tritschler
Urologische Klinik und Poliklinik
Klinikum Großhadern der LMU,
München
Stefan.Tritschler@med.uni-muenchen.de

Conflict of interest statement
The authors of all contributions declare that no conflict of interest exists.