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A National Referral Center for Reconstructive Urethral Surgery: a need for every country
For many years, Urology was a tree, laden with a variety of fruits.
Over time, Urology has lost a lot of its fruit.
These fruit trees are now developing new branches

Center for Reconstructive Urethral Surgery
How can Reconstructive Urethral Surgery grow and develop throughout the world?
In 1995, Mr. Turner-Warwick wrote:

“Reconstructive surgery is time consuming, but rarely urgent...consequently, it has a relatively low priority in a busy urologic service unit.

To specialize exclusively, reconstructive surgeons require a “protect” working environment in association with colleagues who are themselves enthusiastically oriented to the care of the various urgencies of cancer, stones and emergencies. Unfortunately, there are as yet remarkably few such coordinated referral units in the world.”
For many years, I worked at the Department of Urology at the University of Florence “in association with colleagues who are oriented to the care of the various urgencies”

Every day my scheduled urethroplasty was cancelled from the list of the operating room due to an emergency: bleeding following prostactomy, intestinal obstruction following cystectomy, perforated bladder during endoscopy and others…

Center for Reconstructive Urethral Surgery
In January 2000, about 195 patients were on my waiting list for urethroplasty and I was unable to know for certain when I would be able to operate on these patients.

For this reason, in 2000 I left the Department of Urology in Florence and I founded The Center for Reconstructive Urethral Surgery in Arezzo, performing 250 urethroplasties in the first year only.
Why is a National Referral Center for Reconstructive Urethral Surgery a need for every country?

1. In developed countries, urethral strictures are more frequently observed than as reported in the literature (J Urol 2007, 177: 1667).

In developing countries, urethral stricture still represents one of the most frequent urological diseases.
Why is a National Referral Center for Reconstructive Urethral Surgery a need for every country?

2. At present, the surgical treatment of urethral stricture is based on personal surgeon preference and background, rather than on evidence found in the current literature.
Why is a National Referral Center for Reconstructive Urethral Surgery a need for every country?

3. Nowadays, general urologists are mainly involved in the management of prostatic cancer
Why is a National Referral Center for Reconstructive Urethral Surgery a need for every country?

4. Treatment of urethral stricture is an evolving process and the general urologist can not stay up to date on the new surgical strategies that are continuously suggested.
Prostatic cancer is a money-making disease, with money coming from pharmaceutical companies and from patients.

Urologist performing robotic prostatectomy

Urologist performing urethral surgery
The Center for Reconstructive Urethral Surgery is specialized only in diagnosis and treatment of urethral stricture disease and provides the highest standards of patient care.

The Center is engaged in permanent educational programs for urologists who are interested in Reconstructive Urethral Surgery.

The Center’s website offers, in real time, information on the latest surgical techniques and strategies for the treatment of urethral stricture diseases.
Center for Reconstructive Urethral Surgery

Clinical activity

Collect a large number of clinical cases

Select the surgical procedure according to the outcome in a large series of patients

Standardize the preoperative, intraoperative and postoperative surgical procedures

Include all patients in a strict follow-up protocol
## Surgical activity

<table>
<thead>
<tr>
<th>Surgical procedure</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypospadias repair</td>
<td>43</td>
</tr>
<tr>
<td>Failed hypospadias repair</td>
<td>204</td>
</tr>
<tr>
<td>Lichen sclerosus disease</td>
<td>140</td>
</tr>
<tr>
<td>Penile urethral strictures</td>
<td>92</td>
</tr>
<tr>
<td>Bulbar urethral strictures</td>
<td>646</td>
</tr>
<tr>
<td>Posterior urethral strictures</td>
<td>95</td>
</tr>
<tr>
<td>Cold knife urethrotomy</td>
<td>68</td>
</tr>
<tr>
<td>Holmium laser urethrotomy</td>
<td>57</td>
</tr>
<tr>
<td>Removal of urethral stents</td>
<td>36</td>
</tr>
<tr>
<td>Penile or urethral cancer</td>
<td>30</td>
</tr>
<tr>
<td>AMS 800 prosthesis</td>
<td>13</td>
</tr>
<tr>
<td>Penile congenital curvature</td>
<td>94</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>1518</strong></td>
</tr>
</tbody>
</table>
Scientific activity

Report, in the literature, on a large and homogeneous series of patients

Long-Term Followup of Bulbar End-to-End Anastomosis: A Retrospective Analysis of 153 Patients in a Single Center Experience

Guido Barbagli, Michele De Angelis, Giuseppe Romano and Massimo Lazzeri*
From the Center for Urethral Reconstructive Surgery (GB), Unità Operativa Urologia, Ospedale San Donato (MDA, GR), Arezzo, and Department of Urology, Santa Chiara-Firenze, Florence (ML), Italy

One-Stage Bulbar Urethroplasty: Retrospective Analysis of the Results in 375 Patients

Guido Barbagli a, Giorgio Guazzoni b, Massimo Lazzeri c,*
a Center for Reconstructive Urethral Surgery, Arezzo, Italy
b Department of Urology, University Vita-Salute San Raffaele Hospital, Milan, Italy
c Department of Urology, Santa Chiara-Firenze, Florence, Italy

Present, in Meetings and Congresses, guidelines of surgical treatment of patients with urethral strictures
Teaching activity

Training

Organize full-immersion training on Reconstructive Urethral Surgery for young urologists

Center for Reconstructive Urethral Surgery
Teaching activity

Impart knowledge

Transform clinical activity, based on a large series of patients, into scientific evidence and transparency

Center for Reconstructive Urethral Surgery
Teaching activity

Impart skills

Prepare high volume surgeons working in high volume hospitals

Center for Reconstructive Urethral Surgery
All of these goals can be reached only through the development of “Centers” which are able to combine the energy of urologists, health-care givers and payers.
**Teaching activity**

**Full-immersion Training on Reconstructive Urethral Surgery**
Arezzo, 3 – 26 June 2008

**Program at first glance**

<table>
<thead>
<tr>
<th>Teaching activity</th>
<th>N. of sessions</th>
<th>N. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>operating room</td>
<td>12 sessions</td>
<td>42</td>
</tr>
<tr>
<td>radiology</td>
<td>3 sessions</td>
<td>20</td>
</tr>
<tr>
<td>outpatient service</td>
<td>3 sessions</td>
<td>75</td>
</tr>
<tr>
<td>lectures</td>
<td>5 sessions</td>
<td>total 137</td>
</tr>
</tbody>
</table>
Many studies have suggested that outcomes for surgical procedures are better if they are performed in hospitals where a high number of such procedures are performed (high volume hospital), showing lower complication rates than those at hospitals that are less experienced with the procedures.
Many studies have explored the associations between surgeon volume (the number of procedures performed by the surgeon) and outcome.

The outcome of a surgical procedure may depend as much on how well the operation itself is performed.
The Center for Reconstructive Urethral Surgery

High volume hospital

High volume surgeon
Reconstructive urethral surgery seems to be in a perpetual state of unrest, as during the last decades new surgical techniques are continuously suggested.

Only the high volume surgeon working in the high volume Center is able to evaluate the safety, tolerability and efficacy of a new surgical technique suggested in the literature.
In 2006, harvesting of lingual mucosal graft was first described by Italian authors.

The Tongue as an Alternative Donor Site for Graft Urethroplasty: A Pilot Study

Alchide Simonato,* Andrea Gregori, Andrea Lissiani, Stefano Galli, Francesco Ottaviani, Roberta Rossi, Anna Zappone and Giorgio Carmignani

From the Department of Urology “Luciano Giuliani,” University of Genoa (AS, GC), Genoa and Departments of Urology (AG, AL), Pathology (RR) and Anesthesiology and Intensive Care (AZ), and Otorhinolaryngological Clinic IV (FO), “Luigi Sacco” University Medical Center (SG), Milan, Italy

J Urol, 2006; 175: 589-592
In just a few months, we were able to evaluate safety, tolerability, and efficacy of this new surgical technique in a sufficient number of patients.

Reconstructive Urology

The Use of Lingual Mucosal Graft in Adult Anterior Urethroplasty: Surgical Steps and Short-Term Outcome

Guido Barbagli⁹, Michele De Angelis³, Giuseppe Romano³, Pier Guido Ciabatti⁴, Massimo Lazzeri⁵

⁹Center for Reconstructive Urethral Surgery, Arezzo, Italy
³Unità Operativa Urologia, Ospedale San Donato, Arezzo, Italy
⁴Unità Operativa Otorinolaringoiatria, Ospedale San Donato, Arezzo, Italy
⁵Department of Urology, Santa Chiara-Firenze, Florence, Italy

Eur Urol 2008; 54: 671-676
Patients can improve their outcome by selecting a high volume surgeon who performs the operation frequently in a high volume Center.
Patient Referral Center

In 2008, the patient is expert in using the internet and prior to accepting the doctor’s diagnosis and surgical solution, he wants to know everything about the doctor, the Center, the suggested surgical technique and the results.

In our present experience, 70% of patients consulted the internet prior to visiting our office.
Patient Referral Center

Internet must be the patient’s primary source of information on the doctor’s clinical and surgical activities

Your website should reflect the future care of the patient in your hands
Doctor, what’s an end-to-end anastomosis? What are the results and complications of this technique?

Mr. Smith, for your short, bulbar urethral stricture, I would like to perform an end-to-end anastomosis.
You can find all the information on the Center’s website:

- Surgical technique: step by step
- Number of patients treated using this technique
- Results according to: patient age, stricture etiology, length, previous treatments
- Treatment of failures
- Follow-up
- Our articles published in the literature
and more....the complete list of 176 patients

<table>
<thead>
<tr>
<th>No</th>
<th>Age</th>
<th>Stricture Etiology</th>
<th>Stricture Length</th>
<th>Previous Treatment</th>
<th>Date of Surgery</th>
<th>Follow-up Months</th>
<th>Outcome S/F</th>
<th>Further Surgery</th>
<th>Date of Surgery</th>
<th>Outcome S/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>Unknown</td>
<td>1-2</td>
<td>1 urethrotomy</td>
<td>Nov-01</td>
<td>80</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>35</td>
<td>Trauma</td>
<td>2-3</td>
<td>None</td>
<td>Feb-01</td>
<td>89</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>Trauma</td>
<td>2-3</td>
<td>1 urethrotomy</td>
<td>Oct-06</td>
<td>21</td>
<td>Failure</td>
<td>End-to-end anastomosis</td>
<td>Oct-06</td>
<td>Success</td>
</tr>
<tr>
<td>4</td>
<td>27</td>
<td>Catheter</td>
<td>2-3</td>
<td>None</td>
<td>Mar-05</td>
<td>40</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>71</td>
<td>Unknown</td>
<td>2-3</td>
<td>5urethrotomies</td>
<td>Jun-04</td>
<td>49</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>44</td>
<td>Instrumentation</td>
<td>2-3</td>
<td>2urethrotomies</td>
<td>Nov-01</td>
<td>80</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>30</td>
<td>Unknown</td>
<td>2-3</td>
<td>None</td>
<td>Apr-99</td>
<td>111</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>22</td>
<td>Unknown</td>
<td>1-2</td>
<td>1 urethrotomy</td>
<td>May-05</td>
<td>38</td>
<td>Failure</td>
<td>Urethrotomy</td>
<td>Jul-06</td>
<td>Failure</td>
</tr>
<tr>
<td>170</td>
<td>32</td>
<td>Unknown</td>
<td>2-3</td>
<td>None</td>
<td>Nov-03</td>
<td>56</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>51</td>
<td>Unknown</td>
<td>1-2</td>
<td>None</td>
<td>Sep-04</td>
<td>46</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>70</td>
<td>Instrumentation</td>
<td>1-2</td>
<td>2urethrotomies</td>
<td>Jan-08</td>
<td>6</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>173</td>
<td>33</td>
<td>Catheter</td>
<td>2-3</td>
<td>Dilation 2urethrotomies</td>
<td>Dec-00</td>
<td>91</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>39</td>
<td>Unknown</td>
<td>2-3</td>
<td>2urethrotomies</td>
<td>Jan-06</td>
<td>30</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>175</td>
<td>25</td>
<td>Unknown</td>
<td>2-3</td>
<td>None</td>
<td>Jul-02</td>
<td>72</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>176</td>
<td>30</td>
<td>Catheter</td>
<td>1-2</td>
<td>None</td>
<td>Oct-05</td>
<td>33</td>
<td>Success</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Center for Reconstructive Urethral Surgery
Mr. Smith, on our website, you can follow the evolution of your disease and its treatment, comparing your data with the data of 176 men who underwent the same surgical repair.
The patient will certainly appreciate this information because…

…no patient likes to be considered an experimental animal
The next step is to create a nomogram utilizing our data-base

The patient should create a personal table, including age, stricture etiology, length, previous treatment and suggested surgical technique. He will then obtain the success rate of his surgical operation.

<table>
<thead>
<tr>
<th>Patient and stricture data</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
</tr>
<tr>
<td>stricture etiology</td>
</tr>
<tr>
<td>stricture length</td>
</tr>
<tr>
<td>previous treatments</td>
</tr>
<tr>
<td>surgical technique</td>
</tr>
<tr>
<td><strong>Final success rate</strong></td>
</tr>
</tbody>
</table>
How can a Patient Referral Center become a National Referral Center?

When the Patient Referral Center is able to provide the highest possible standard of care and success rate

When the results of the Patient Referral Center become widespread, and the urological community is forced to compare their results with those of the Center

When the general urologist suggests that the patient visits our Center for consultation before the patient asks:

“Doctor, why didn’t you tell me about the Center specialized in treatment of urethral strictures before?”

Center for Reconstructive Urethral Surgery
A National Referral Center for Reconstructive Urethral Surgery: a need for every country

Why?

To ensure that the patient receives the highest possible standards of care, strictly according to the surgical options suggested in the current literature.

To enroll the patient in a strict follow-up protocol, so as to be sure that patient quality of life is not negatively influenced by surgery outcome.
A National Referral Center for Reconstructive Urethral Surgery: a need for every country

Why?

To make room for a “New Urethral Science” that puts both learning and expertise to the best use

To standardize in every country surgical treatment of urethral trauma and stricture, avoiding out-dated treatment based on “personal opinion” rather than evidence from the high volume Center
To make room for a “New School of Reconstructive Urethral Surgery” that schools the urologist according to the following principles:

Why?

- knowledge
- evidence
- transparency
A National Referral Center for Reconstructive Urethral Surgery: a need for every country

Why?

Reconstructive Urethral Surgery must leave the busy hands of the general urologist to be placed into the sure hands of the specialized urologist who has dedicated his life to treating patients with urethral stricture disease.
A National Referral Center for Reconstructive Urethral Surgery: a need for every country

Why?

Time is changing
Urology is changing
Teaching is changing
Learning is changing

Life is changing

20 years old  
58 years old

Center for Reconstructive Urethral Surgery
Next month, this lecture will be fully available on our website

Thank you!