Highlights

Erectile Dysfunction - Surgical

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Johns Hopkins Hospital
Peyronie’s Disease
Comparison between AMS 700™CX and Coloplast™ Titan inflatable penile prostheses for Peyronie’s disease treatment and remodelling: Clinical outcomes and patient satisfaction.

Eric Chung
ISSM/SMSNA Chicago

Aims of study

- Compare surgical and clinical outcomes as well as patient satisfaction rate in AMS 700CX and Titan IPP implantation with manual penile remodeling in men with PD and concomitant ED over a 5-year period
**Results: Patient Satisfaction and IPP Use**

- There was no significant difference between the 2 IPPs devices in terms of infection and/or erosion (p>0.05)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>AMS 700 CX (%)</th>
<th>Titan (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of IPP implanted</td>
<td>88 (64)</td>
<td>50 (36)</td>
<td>N/A</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating 1-3</td>
<td>12 (14)</td>
<td>5 (10)</td>
<td>0.57</td>
</tr>
<tr>
<td>Rating 4-5</td>
<td>76 (86)</td>
<td>45 (90)</td>
<td>0.46</td>
</tr>
<tr>
<td>Would undergo surgery again</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>72 (82)</td>
<td>44 (88)</td>
<td>0.68</td>
</tr>
<tr>
<td>No</td>
<td>18 (18)</td>
<td>6 (12)</td>
<td>0.62</td>
</tr>
<tr>
<td>Primary reason for dissatisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decreased penile length</td>
<td>12 (14)</td>
<td>6 (12)</td>
<td>0.69</td>
</tr>
<tr>
<td>Problems with prosthesis</td>
<td>2 (2)</td>
<td>1 (2)</td>
<td>0.50</td>
</tr>
<tr>
<td>Personal health concerns</td>
<td>2 (2)</td>
<td>3 (6)</td>
<td>0.36</td>
</tr>
<tr>
<td>Loss of regular sexual partners</td>
<td>3 (3)</td>
<td>0 (0)</td>
<td>0.35</td>
</tr>
<tr>
<td>Frequency of sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least once a week</td>
<td>25 (28)</td>
<td>17 (34)</td>
<td>0.56</td>
</tr>
<tr>
<td>Fortnightly</td>
<td>30 (34)</td>
<td>22 (44)</td>
<td>0.65</td>
</tr>
<tr>
<td>At least once a month</td>
<td>22 (25)</td>
<td>5 (10)</td>
<td>0.41</td>
</tr>
<tr>
<td>Other</td>
<td>11 (13)</td>
<td>6 (12)</td>
<td>0.70</td>
</tr>
</tbody>
</table>
Conclusions

- IPP implantation and manual penile remodelling appears to provide satisfactory penile straightening without an increase risk of revision surgery
- AMS 700 CX and Titan IPPs were “similar” in prosthesis survival and patient satisfaction rate
Initial experience with surgical straightening for Peyronie’s disease following Xiaflex intralesional injection

Larsen LM, Levine LA.

• **Objective**: Retrospective review of Peyronie’s patients who failed Xiaflex intralesional therapy who subsequently underwent surgical straightening.

• **Methods**: 7 patients were identified, five men underwent partial plaque excision and grafting and 2 required plication procedure.
Initial experience with surgical straightening for Peyronie’s disease following Xiaflex intralesional injection
Larsen LM, Levine LA.

• **Results:** Average curvature was 59 degrees and average time from last injection ~3mths.

• Surgery was successful in all patients and one patient required drainage of a sub-graft hematoma.

• **Conclusion:** For those men who do not have satisfactory response to Xiaflex intralesional injection, surgical correction of curvature can be performed without added technical difficulty.
Management of Infections/Erosion IPP
Salvage replacement of penile prosthesis with normal saline washout
Masson P, Eid JF.

- **Objective**: During revision surgery for infected penile prosthesis, normal saline washout of the implant space followed by immediate replacement of prosthesis.

- **Methods**: Infected prosthesis was removed and the corpora, scrotal cavity and reservoir pockets were irrigated with 10-12 liters of NORMAL SALINE with pulse lavage.
Salvage replacement of penile prosthesis with normal saline washout
Masson P, Eid JF.

- **Results**: 27 (1.1%) patients developed infection and 18 underwent salvage technique with placement of malleable prosthesis. Median followup of 12mths, no patients required re-operation for infection, and 6 (33%) of patients went onto IPP.

- **Conclusion**: Salvage prosthesis with normal saline lavage is safe and effective for preventing recurrence of infection
• We present our experience with the use of a novel temporary synthetic high purity calcium sulfate (SHPCaSO4) component that acts as a “spacer” at the time of removal of an infected prosthesis while providing constant delivery of local antibiotic elution to the infected area.

• Two patients presenting with eroded/infected penile implant, who were not candidates for a salvage procedure, underwent injection of SHPCaSO4, mixed with vancomycin and tobramycin, into the corporal space, after explantation and vigorous washing of the space with antibiotic solution. The corporal incisions were then closed with 2-0 Vicryl sutures with a watertight closure. The injected SHPCaSO4 was palpable in the penile shaft both proximally and distally, as an “intracorporal casts.”
• Delayed implantation of a 3-piece inflatable implant occurred at 6 weeks for the first patient, which was uneventful without evidence of fibrosis/scar tissue. The second patient underwent placement of right malleable implant only at 15 weeks, secondary to the significant corporal fibrosis encountered. Patients have had no infection since their delayed implantation (mean followup 4 months).

• Initial experience demonstrates that the use of this novel material, SHPCaSO4, can be an innovative way to bridge the gap between removal of an infected penile implant and delayed reimplantation. Data in reference to this material, shows that this product dissolves in approximately 4-6 weeks. This may account for the difference in the ease of delayed implantation between the two patients. Further investigation is warranted.

IRB approved study #Pro00009309
Ectopic Placement of Reservoir
UPDATE ON COMPARISON OF CONCEAL VERSUS REGULAR SUB-SCARPA’S FASCIA RESERVOIR PLACEMENT FOR HIGH RISK PATIENTS RECEIVING INFLATABLE PENILE PROSTHESIS IMPLANTATION

Dominic Lee MD¹, Andrea Chan MD², Kenneth Ewane MD², Haocheng Lin MD², Huong Truong MD² and Run Wang MD, FACS³

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Purpose
This study is to compare the sub–Scarpa’s fascia (SSF) placement of Conceal versus regular reservoir in high risk patients.

Method
During placement of reservoir, the rectus fascia or the external oblique aponeurosis/muscle at the external inguinal ring was identified. A space was created in the SSF towards the ipsilateral shoulder in either the right or the left lower abdomen for the reservoir placement.
Results: 42 patients received SSF reservoir placement: 16 regular reservoirs and 26 Conceal reservoirs at a single institution. Etiology for ED and reasons for SSF placement include: 2 each for severe pelvic trauma with multiple lower abdominal surgeries and post radical prostatectomy with severe obesity; 3 pelvic sarcoma surgeries; 5 salvage radical prostatectomy after XRT and 30 post radical cystectomy. Mean age was 55 years (range 39-72) and mean duration of follow-up was 6 months (range 2-24).

No patient complained of discomfort at reservoir area or reported autoinflation on follow up. The palpable reservoirs were seen in 5 patients who received regular reservoirs, but none in patients with Conceal reservoir.

Conclusion: Both regular and Conceal SSF reservoir placements are a safe and effective in high risk patients. However, the conceal reservoir is cosmetically more acceptable.
Priapism
Corporal Burnett “Snake” Surgical Maneuver for the treatment of Ischemic Priapism: Long Term Results

R. Segal, N. Readal, PM Pierorazio, AL Burnett, TJ Bivalacqua

- **Objective**: To evaluate a modification of the Al-Ghorab distal penile corporoglandular shunt surgery for treatment of refractory ischemic priapism.

- **Methods**: Retrospective review of the Johns Hopkins Hospital priapism database from January 2008 to April 2012. 10 patients underwent Burnett “Snake” Shunt.
Corporal Burnett “Snake” Surgical Maneuver for the treatment of Ischemic Priapism: Long Term Results

R. Segal, N. Readal, PM Pierorazio, AL Burnett, TJ Bivalacqua

• **Results**: Mean duration of priapism was >72 hrs, Burnett shunt was successful in 8/10 patients and 2 patients underwent placement of 3-piece IPP.

• 6/9 patients who underwent Burnett shunt had normal pre-operative erectile function and 2 patients had partial responses to PDE5 inhibitors after shunt.

• 2 men had complications – skin necrosis, and urethral injury.

• **Conclusion**: Burnett shunt procedure is successful for treating men with prolonged ischemic priapism and IPP placement was successful with no complications.
3-PIECE INFLATABLE PENILE PROSTHESIS INSERTION POST DISTAL T-SHUNT FOR PRIAPISM WITH DILATION/CORPORAL SNAKE MANEUVER AND COMPARISON TO POST AL-GHORAB SHUNT IPP OUTCOMES


PURPOSE AND METHODS

• Examine results for 3P IPP surgery in patients post T-shunt with dilation and identify surgical outcomes with mid-term follow-up
• 7 T-shunt patients with dilation that required IPP were compared to post-tunical excision shunt IPP outcomes
• Surgical parameters – time, need for adjuvant maneuvers, and intraoperative complications
• Outcomes – (minimum one year) device erosion/mechanical failure and second surgeries

RESULTS

• All post T-shunt with dilation patients surgeries were complicated by dense distal fibrotic changes, requiring a second small (<3cm) incision

• By comparison, 6.6% of patients undergoing IPP (including Peyronie’s disease) need a ventral corporotomy in the same practice

• Note – patient T-shunt + dilation to OR 3 months

• al-Ghorab patients did not need a second incision

• At minimum of one year follow-up, 18/19 patients maintained the original IPP and did not require revision or adjuvant surgery

• Single erosion in al-Ghorab cohort

Conclusion

• Shunts coupled with dilation of the corpora are increasing utilized for treatment-refractory priapism

• IPP surgery in these patients appears safe, although the risk of distal erosion is yet to be quantified due to limited data availability

• Patient and surgical factors determining longer-term IPP viability remain to be determined
Penile prosthesis insertion in patients with refractory ischemic priapism: immediate versus delayed implantation

Zacharakis E, Garaffa G, Abdel Raheem AP, Christopher N, Ralph DJ.
Results

- **Group 1 – Immediate**
  - 2% Erosion
  - 7% Infection
  - 91% Uncomplicated
- **Group 2 – Delayed**
  - 4% Erosion
  - 19% Infection
  - 4% Malfunction
  - 73% Uncomplicated

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<thead>
<tr>
<th></th>
<th>Group 1 Immediate</th>
<th>Group 2 Delayed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penile shortening</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>96%</td>
<td>93%</td>
</tr>
<tr>
<td>Revision rate</td>
<td>4%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Mean F/U 17-23 months
Take home message...

Patients with refractory ischemic priapism should be offered immediate implantation of a penile prosthesis as this:

- Treats the initial condition
- Preserves penile length
- Superior functional results and satisfaction rate