90 Degree Penile Curvature: Corporoplasty

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Disclosures

- American Medial Systems (AMS)
- Auxilium Inc.
- Endo Pharmaceuticals
- Lilly
- Pfizer Inc.
- Reflexonic LLC
- VIVUS
- National Institutes of Health
Case Report: Important Issues

Natural history
- Is his disease stable?
- Does he have pain?

Course of management
- Prior treatments?
- Success with any prior therapy?

Diagnostic evaluation
- Objective confirmation of erectile function, e.g. duplex ultrasonography?
- What is the “true” angulation?

Treatment decisions
- What are the patient’s goals?
- Does he understand advantages/disadvantages of options?
Current Treatment Options for PD

- **Conservative-observation** for men capable of coitus without pain to self or partner; reassure that PD will not deteriorate into malignancy

- **Oral-vitamin E, Potaba® (potassium p-aminobenzoate), colchicine, tamoxifen, carnitine**

- **Injection-steroids (condemn); verapamil, interferon, collagenase**

- **Topical +/- energy-verapamil cream +/- ultrasound, laser, iontophoresis, extracorporeal shock wave therapy (ESWT)**

- **Surgery-plication, incision/excision and grafting, prosthesis placement**

Surgical Algorithm for PD

Adequate rigidity (ie, regardless of deformity) without pharmacotherapy

- Tunica albuginea plication (TAP)
  - Simple curve $<60^\circ$
  - No hourglass or hinge effect

- Incision/partial excision and grafting
  - Complex/bidimensional curve $>60^\circ$
  - Destabilizing hourglass or hinge

Surgical Algorithm for PD (cont’d)

Inadequate rigidity without pharmacotherapy

- Penile prosthesis placement
  - Prosthesis alone
  - Prosthesis with modeling
  - With incision over prosthesis
  - With incision and polytetrafluoroethylene (PTFE) pericardial graft

Plication (Corporoplasty) Procedures: Principles

- Restricts the convex (longer) side of the penis to match the length of the concave (shorter) side

- Addresses penile deformity, not erection quality (without treating the penile plaque/scar)
Plication (Corporooplasty) Procedures: Technical Considerations

- Multiple variations are feasible, using tunical excision or not and either non-absorbable or slowly-absorbable suture.

- Surgical approaches may vary, from circumcising incision to midline ventral incision for dorsal curvatures.

- Care is taken to preserve the neurovascular bundle dorsally and the corpus spongiosum/urethra ventrally.

- Multiple smaller wedges (tunical excisions) or suture plications are possible to avoid indentations or hinge effects of a single, large plication.
Initial Penile Dissection

Penile skin degloving with artificial erection.
Buck’s Fascia Dissection and Tunica Albuginea Exposure

Dorsal exposure

Ventral exposure
Nesbit and Plication Procedures

Allis forcep marking

Suturing with buried knots
Completion of Surgery

Buck’s fascia closure

Coban dressing
Plication (Corporoplasty) Procedures: Outcomes

- Penile straightness achieved in 85-100% of cases
- Patient satisfaction rates ~80% - 95%

Syed AH et al. Urol 2003; 61: 999-1003
Plication (Corporoplasty) Procedures: Does Penile Shortening Occur?

- Consider scarring from the disease itself and not the surgical correction
- An improvement in “stretched penile length” has been reported\(^1\)
- Typical length “loss” is 1 cm or less and constitutes a minor percentage of pre-operative penile length\(^2\)
- Length loss is perceived from the perspective of the direction of curvature: worse with ventral or ventrolateral curvatures\(^2\)

Corporoplasty Advantages

- Safe/low complication risk (low risk of post-operative ED, penile sensation changes)
- Effective
- Durable functional outcomes
- Widely feasible, as per surgical algorithms
- Technically uncomplicated
Incision with Grafting (Patch) Disadvantages

- Requires completely intact pre-operative erectile function
- Carries a substantial risk of post-operative ED, particularly if plaque excision is performed (0-53%)
- Involves a more extensive dissection that may result in penile sensation changes (0-31%)
- Graft materials may be less than ideal: reactive/inflammatory/scarring risk; donor site injury risks (pain, bleeding, infection)
- Requires experience technically to size grafts properly because of their contracture risk/recurrent deformity over time (0-26%)
- Does not necessarily elongate the penis, which may remain restricted by the inherent disease process

Dr. Wayne J. G. Hellstrom MD, FACS is Professor of Urology and Chief of Andrology at Tulane University School of Medicine in New Orleans, US. He specializes in the diagnosis and treatment of sexual dysfunction, including Peyronie's disease.

Dr. Hellstrom has published over 250 peer-reviewed articles in professional publications and has contributed to numerous chapters in textbooks. He is also the editor of “Male Infertility and Sexual Dysfunction” and “The Handbook of Sexual Dysfunction.”

Dr. Wayne J. G. Hellstrom has been awarded many honors in the field of Urology. He has served as president of the Sexual Medical Society of North America, committee chair of the International Society of Sexual Medicine (ISSM), president-elect of the American Society of Andrology, associate editor for The Journal of Sexual Medicine and specialty editor for the Journal of Urology.

Dr. Wayne J. G. Hellstrom kindly agreed to an interview with My Peyronie's.

**Do you have preferred surgical procedure for Peyronie's disease and if so, why?**

I offer all types of PD surgery depending upon patient characteristics and preferences. Patients with baseline erectile dysfunction will often benefit most from a combined insertion of penile prosthesis with manual modeling +/- incision of plaque.

I will frequently discuss the advantages and disadvantages of each approach, and will ultimately come to a decision as to optimal treatment with the patient.