Surgical treatment for Peyronie's disease (PD)

European Society for Sexual Medicine Statements

AIM OF SURGERY

Improve penile deformities whilst minimizing any adverse outcomes

MOMENT OF SURGERY:

In chronic stage – at least 6 months - if the curvature/deformity/quality of erections do not allow a satisfactory sexual intercourse

SURGICAL TECHNIQUES

Set realistic expectations by providing information about each surgical option.

CONSIDER: Extent of penile length loss, degree and nature of the deformity, quality of erections, patient preferences

Statement #1: The treating clinician should adequately counsel patients before surgery. Benefits as well as side effects and complications of each surgical treatment should be discussed in detail with the patient to set realistic expectations towards surgical outcomes
Statement #2: The treating clinician should thoroughly address psychological, emotional and relationship issues attributable to PD
Statement #3: Surgical treatment should only be performed in PD patients when the curvature and/or penile deformity and/or inadequate quality of erections do not allow satisfactory sexual intercourse, or when the deformity causes severe bother
Statement #4: Surgery should only be performed in patients with stable disease for at least six to twelve months
Statement #5: In penile surgery for PD, when adopting a subcoronal approach, circumcision is not necessary in selected patients with a normal, elastic prepuce

TUNICAL PLICATION (SHORTENING PROCEDURES)-Nesbit, Yachia, Essed, Schroeder, 16 or 24 dots,Baskin-Duckett

Straighten the penis by reducing the longer convex side

Complete straightening: 48-100% **Patient satisfaction rates:** 58-96%

Statement #6: Tunical plication can be offered to reduce penile curvature in patients with PD

GRAFTING PROCEDURES (PIG/PEG TECHNIQUES)-If quality of erection preserved + curvature >60. Relaxing incision (PIG) or excision (PEG) of the plaque on the concave side + covered the defect with a graft. No comparative studies comparing graft type

Complete straightening (with self-adhesive collage fleece): 83% **Patient satisfaction rates** (with self-adhesive collage fleece): 92%

Statement #7: Grafting techniques can be offered to improve penile curvature and correct penile deformity in selected patients with PD including those with preservation of erectile quality, curvature of more than 60 degrees, ossified plaque, significant waist deformity, or when plication surgery may potentially cause loss of more than 20% of overall penile length
Statement #8: The use of DacronTM and Gore-TexTM for grafting in penile surgery for PD should be strongly discouraged

PENILE PROSTHESIS (PP) Patients with Peyronie + refractory erectile dysfunction – add additional modeling/plication/grafting if >30 curvature

Complete straightening: 84-100% **Patient satisfaction rates:** 79%

Statement #9: Penile prosthesis implantation is reserved for PD patients with refractory ED or distal flaccidity not responding to pharmacologic treatment or those with complex deformities that would otherwise require PIG/PEG procedures
Statement #10: Additional procedures including modeling, tunical plication, plaque incision/excision and/or grafting are performed when penile deformity and/or penile curvature persist following penile prosthesis implantation
Statement #11: Inflatable prostheses are associated with superior results in terms curvature correction, rigidity, girth restoration and concealability than their semirigid counterpart in patients with PD

POSTOPERATIVE COMPLICATIONS

Complications	In plications	In PIG/PEG	Considerations
De novo ED	7%-10%	4-67%	Due to disruption of the veno-occlusive mechanism, neurovascular bundle damage extensive mobilization, psychogenic factors.
Recurrent curvature	0.5-55%	0-33%	Due to poor surgical technique (in early stages) +/- progression of PD (appears at a lager stages).
Glans hypoesthesia	53%	39%	Due to neuroapraxia /infiltration into the neurovascular bundle. Transient, resolution within 12 months after surgery
Palpable sutures/graft	Up to 71%	50%	Only painful in 4-6%.
Glans ischemia	0%	2.4%	
Bulge deformities	9-16.7%	3-12.5%	

REVISION SURGERY AND OTHER CONSIDERATIOS: Revision surgery it should be carried out at least 6 months after the initial procedure.

Consider PP implantation alone or with straightening maneuvers to minimize penile length loss or to avoid ED

Statement #12: In select cases, complications may be managed with revision surgery, including PP implantation in patients who have developed de novo refractory ED.
Statement #13: None of the straightening procedures currently available has proven superior with regards to preventing curvature recurrence
Statement #14: Surgical curvature correction after Collagenase Clostridium Histolyticum (CCH) injection is possible without significant increase in complications
Statement #15: Postoperative rehabilitation programs may reduce the risk of penile curvature recurrence and shortening
Statement #16: When necessary, revision surgery should be carried out at least 6 months after the initial procedure to allow for complete healing and stabilization of the deformity and for adequate assessment of postoperative erectile function
Statement #17: Penile prosthesis implantation alone or in combination with straightening maneuvers can be considered during revision surgery, in order to minimize further penile length loss or to avoid worsening of erectile function
Statement #18: The use of collagen fleece as a graft material following plaque incision can be contemplated in revision surgery

CONCLUSIONS: Although surgery represents the gold standard treatment of PD, the main limitation remains that it does not completely repair the damage and restore the penis to the original dimensions and function.