DIAGNOSIS AND TREATMENT OF PEYRONIE’S DISEASE

AUA Guideline (2015)

Purpose
This guideline’s purpose is to provide direction to clinicians and patients regarding how to recognize Peyronie’s disease, conduct a valid diagnostic process, and approach treatment with the goals of maximizing symptom control, sexual function, and patient and partner quality of life while minimizing adverse events and patient and partner burden. The strategies and approaches recommended in this document were derived from evidence-based and consensus-based processes. There is a continually expanding literature on Peyronie’s disease; the Panel notes that this document constitutes a clinical strategy and is not intended to be interpreted rigidly. The most effective approach for a particular patient is best determined by the individual clinician and patient in the context of that patient’s history, values, and goals for treatment. As the science relevant to Peyronie’s disease evolves and improves, the strategies presented here will be amended to remain consistent with the highest standards of clinical care.

Guideline Statements:

Diagnosis:
1. Clinicians should engage in a diagnostic process to document the signs and symptoms that characterize Peyronie’s disease. The minimum requirements for this examination are a careful history to assess penile deformity, interference with intercourse, penile pain, and/or distress) and a physical exam of the genitalia (to assess for palpable abnormalities of the penis). (Clinical Principle)
2. Clinicians should perform an in-office intracavernosal injection test with or without duplex Doppler ultrasound prior to invasive intervention. (Expert Opinion)
3. The evaluation and treatment of a man with Peyronie’s disease should be undertaken by the clinician who has the experience and expertise in the appropriate evaluation, counseling, and management of this condition and treatment complications. (Expert Opinion)

Treatment:
4. Clinicians should discuss with patients the available treatment options and the known benefits and risks/burdens associated with each treatment. (Clinical Principle)
5. Clinicians may offer oral non-steroidal anti-inflammatory medications to the patient suffering from active Peyronie’s disease who is in need of pain management. (Expert Opinion)
6. Clinicians should not offer oral therapy with vitamin E, tamoxifen, procarbazone, omega-3 fatty acids, or a combination of vitamin E with L-carnitine. (Moderate Recommendation; Evidence Strength Grade B (vitamin E) / B (omega-3 fatty acids) / B (vitamin E + propionyl-L-carnitine) / C (tamoxifen) / C (procarbazone))
7. Clinicians should not offer electromotive therapy with verapamil. (Moderate Recommendation; Evidence Strength Grade C)
8. Clinicians may administer intraslesional collagenase clostridium histolyticum in combination with modeling by the clinician and by the patient for the reduction of penile curvature in patients with stable Peyronie’s disease, penile curvature >30° and <90°, and intact erectile function (with or without the use of medications). (Moderate Recommendation; Evidence Strength Grade B)
9. Clinicians should counsel patients with Peyronie’s disease prior to beginning treatment with intraslesional collagenase regarding potential occurrence of adverse events, including penile ecchymosis, swelling, pain and corporal rupture. (Clinical Principle)
10. Clinicians may administer intraslesional interferon α-2b in patients with Peyronie’s disease. (Moderate Recommendation; Evidence Strength Grade C)
11. Clinicians should counsel patients with Peyronie’s disease prior to beginning treatment with intraslesional interferon α-2b about potential adverse events, including sinusitis, flu-like symptoms and minor penile swelling. (Clinical Principle)
12. Clinicians may offer intraslesional verapamil for the treatment of patients with Peyronie’s disease. (Conditional Recommendation; Evidence Strength Grade C)
13. Clinicians should counsel patients with Peyronie’s disease prior to beginning treatment with intraslesional verapamil about potential adverse events, including penile bruising, diziness, nausea and pain at the injection site. (Clinical Principle)
14. Clinicians should not use extracorporeal shock wave therapy (ESWT) for the reduction of penile curvature or plaque size. (Moderate Recommendation; Evidence Strength Grade B)
15. Clinicians may offer extracorporeal shock wave therapy (ESWT) to improve penile pain. (Conditional Recommendation; Evidence Strength Grade B)
16. Clinicians should not use radiotherapy (RT) to treat Peyronie’s disease. (Moderate Recommendation; Evidence Strength Grade C)
17. Clinicians should assess patients as candidates for surgical reconstruction based on the presence of stable disease. (Clinical Principle)
18. Clinicians may offer tunical plication surgery to patients whose rigidity is adequate for coitus (with or without pharmacotherapy and/or vacuum device therapy) to improve penile curvature. (Moderate Recommendation; Evidence Strength Grade C)
19. Clinicians may offer plaque incision or excision and/or grafting to patients with deformities whose rigidity is adequate for coitus (with or without pharmacotherapy and/or vacuum device therapy) to improve penile curvature. (Moderate Recommendation; Evidence Strength Grade C)
20. Clinicians may offer penile prosthesis surgery to patients with Peyronie’s disease with erectile dysfunction (ED) and/or penile deformity sufficient to prevent coitus despite pharmacotherapy and/or vacuum device therapy. (Moderate Recommendation; Evidence Strength Grade C)
21. Clinicians may perform adjunctive intra-operative procedures, such as modeling, plication or incision/grafting, when significant penile deformity persists after insertion of the penile prosthesis. (Moderate Recommendation; Evidence Strength Grade C)

We would like to sincerely thank Endo Pharmaceuticals Inc. for supporting the promotion and distribution of the AUA Pocket Guideline for Peyronie’s Disease. Consistent with the AUA’s strict conflict of interest policy, Endo Pharmaceuticals Inc. had no access to the AUA guidelines panel, played no part in the research or development of AUA guidelines and did not review them prior to publication. The support offered by Endo Pharmaceuticals Inc. and gratefully accepted by the AUA sincerely was in the best interest of the educational mission of the guidelines to help you and your practice.
Peyronie’s Guideline Algorithm

**HISTORY & PHYSICAL**
- **BASIC ASSESSMENT**
  - Penile deformity
  - Palpable abnormalities
  - Interference with intercourse
- **PATIENT COUNSELING**
  - Typical course of PD
  - Available treatment options based on phase
  - Benefits/risks of treatment options
  - Agree on realistic treatment goals

**EXPERT OPINION**
- **Perfom in-office intracavernosal injection (ICI) test with or without duplex ultrasound**
  - Document curvature, other deformities, presence/absence and degree of plaque(s) and ED

**PATIENT HAS STABLE DISEASE**
- Patient desires invasive treatment

**PATIENT HAS ACTIVE DISEASE**
- Patient desires treatment of pain

**EXPERT OPINION**
- **Follow and repeat assessment; if patient has reached stable disease state as indicated by absence of pain and non-progression of curvature, then may consider invasive treatments**

**THERAPIES THAT SHOULD NOT BE OFFERED:**
- **CONDITIONAL RECOMMENDATION**
  - If inadequate pain control with oral medications, then may offer ESWT (Grade B), BUT:
    - Substantial patient burden
    - Rarely used in US
    - Does not reduce curvature or plaque

**PATIENT COUNSELING**
- **Patient has stable disease and requires greater deformity correction than possible with intral dissocial treatments**

**MODERATE RECOMMENDATIONS**
- **Offer intral dissocial collagenase clostridium histolyticum with modeling by clinician and patient for curvature reduction (Grade B)**
  - Appropriate for patients with curvature >30 and <90 degrees
  - Patient must have intact erectile function with or without use of medications
  - Offer intral dissocial interferon ex-26 for curvature, plaque, and pain reduction (Grade C)

**MODERATE RECOMMENDATION**
- **Offer tunical plication or plaque incision/excision with or without grafting (Grade C)**

**MODERATE RECOMMENDATION**
- **Offer penile prosthesis surgery with intraoperative adjunctive procedures, as necessary (Grade C)**
  - Use inflatable penile prosthesis (Expert Opinion)

**CONDITIONAL RECOMMENDATION**
- **Offer intralesional verapamil (Grade C)**
  - Note: evidence for efficacy is weak

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**THERAPIES THAT SHOULD NOT BE OFFERED:**
- **MODERATE RECOMMENDATIONS**
  - Oral therapy with vitamin E, omega-3 fatty acids, vitamin E plus L-carnitine (Grade B), tamoxifen, procarbazine (Grade C)
  - Electromotive verapamil (Grade C)
  - Radiotherapy (Grade C)