Ventral Intralesional Verapamil Injections for Peyronie's Disease: Feasibility and Safety

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Background

- Until recently, treatment options for men with PD has included medical therapies with limited evidence-based research or surgical correction.
- Intralesional verapamil (ILV) used for PD since 1994
- Minimal RCT data
- Little data on ventral injections
- Recently commenced ventral ILV injections

Background

- Small, conflicting studies in the literature regarding use of intralesional verapamil:

  - Randomized controlled trial of 14 patients with 16 month history of curvature: no significant difference in curvature between verapamil and control[1]

  - Retrospective review 156 patients with mean 18 months curvature: 62% of men demonstrating a decrease in curvature (mean 31°)[2]

  - Retrospective review 94 patients with mean 5.2 months curvature: 18% of men demonstrating a decrease in curvature (mean 12°)[3]

[1]Rehman J et al. Urology. 1998;51(4):620. [2]Levine LA et al. J Urol. 2002;168 (2):621.
[3]Bennett NE et al. Urology. 2007; 69(6):1181.

Background

- Use of Collagenase Clostridium histolyticum is not approved for ventral plaques

- Concerns regarding access to plaque, injury to urethra, bleeding and efficacy of treatment

Objective

To describe the outcomes of ventrally administered intralesional verapamil therapy in men with Peyronie's disease and a ventral penile plaque

Inclusion Criteria

- Men with penile curvature: stable and unstable
- Acute (unstable) Peyronie's disease defined as:
  - Presence of flaccid penile pain OR
  - Tender plaque OR
  - Reported curvature change in past 3 months
- Patients with stable PD were treated as well

Methods

- Prospectively gathered data through MSK databases
- Curvature assessment performed in all men prior to initiation of treatment, with repeat assessment at least 3 months after completion of treatment
- 6 intralesional injections using 10mg verapamil in 5 mL normal saline, administered 2 weeks apart
- Significant change in curvature defined as ≥10 degree change

Techique

- Dorsal injection
  - Avoids 12 o'clock position
  - Corn-row technique bilaterally
- Ventral injection
  - Avoids corpus spongiosum
  - Flatter needle approach
  - Identical corn-row technique

Results

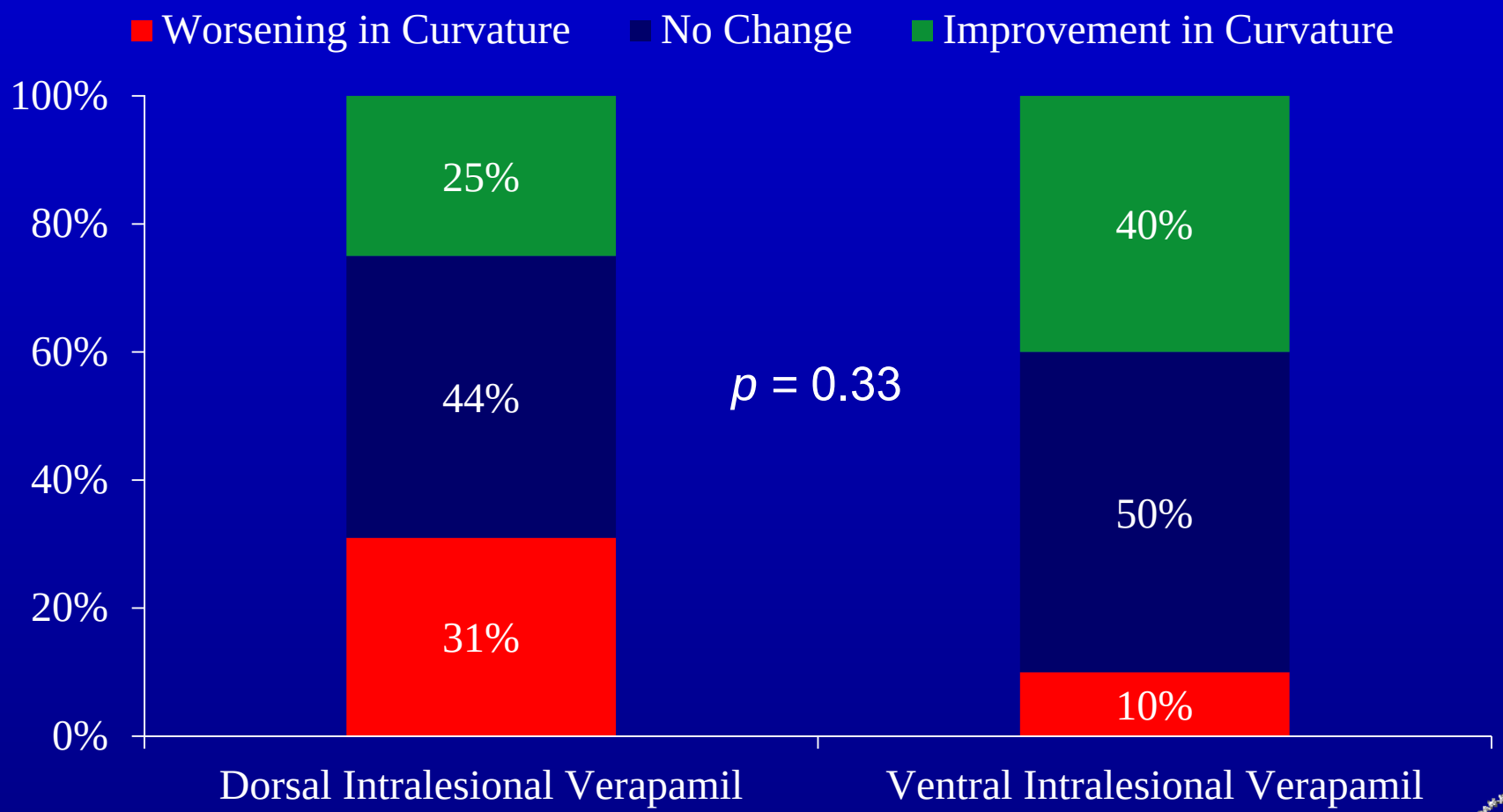
- 144 men received dorsal intralesional verapamil injections
  - Mean age 55±8 years
  - Mean PD duration: 8±18 months
  - Baseline curvature: 38±15 degrees
- 16 men received ventral injections
  - Mean age 59±7 years
  - Mean PD duration: 3±2 months
  - Baseline curvature: 39±11 degrees

Results

Comorbidity	Percent of Patients
Hypertension	29%
Diabetes mellitus	7%
Smoking	5%
Coronary artery disease	4%

*No significant difference noted between dorsal and ventral patients.

Curvature Response to Treatment with Intralesional Verapamil



Effects of Ventral Treatment

- Rare, self-limiting hematuria
- Blood at urethral meatus
- No urinary retention
- No penile hematoma
- No urinary symptoms suggestive of urethral stricture

Strengths and Limitations

- Limitations
  - Small sample size
  - Differences in time course of disease in two groups
  - Not a RCT
- Strengths
  - Standardized curvature assessment
  - Baseline and EOT curvature assessment

Conclusions

- 40% of men with ventral curvature had significant improvement using intralesional verapamil
- About 10% of men will demonstrate worsening in curvature after ventral intralesional verapamil
- There appeared to be no significant differences in outcomes between dorsal and ventral intralesional verapamil in Peyronie's disease treatment
- Ventral intralesional verapamil represents a safe and possibly efficacious treatment option in men with Peyronie's disease