Case of the Week

Hemang Kotecha, DO November 15, 2016



37M with erectile dysfunction



Normal Anatomy



Normal Anatomy



37M with erectile dysfunction



Peyronie Disease

Clinical

- Acquired cause of erectile dysfunction and penile curvature
- Palpable plaque in the tunica albuginea and corpus cavernosum¹
- Prevalence of 3%²

1. Hauck EW, Hackstein N, Vosshenrich R, et al. Diagnostic value of magnetic resonance imaging in Peyronie's disease: a comparison both with palpation and ultrasound in the evaluation of plaque formation. Eur Urol 2003;43(3):293–300.

2. Schwarzer U, Sommer F, Klotz T, Braun M, Reifenrath B, Engelmann U. The prevalence of Peyronie's disease: results of a large survey. BJU Int 2001;88 (7):727–730.

Clinical

- Acute phase (12-18 months)
 - Pain and flaccidity during intercourse
- Chronic phase
 - Penile deformity (angulation and shortening)
- Surgery typically delayed until acute phase is over

Imaging

• MR

 Used for accurate depiction of deformity, tunical thickness, plaque position, and cavernosal diameter³

- Low signal on T1- and T2-WI
- US

Able to detect calcified plaques

3. Kirkham AP, Illing RO, Minhas S. MR imaging of non malignant penile lesions. Radiographics. 2008 (28):837-853

Imaging

RG Volume 28 • Number 3





Figure 12. (a) Peyronie disease in a 33-year-old man. Coronal T2-weighted MR image obtained after the intracavernosal injection of prostaglandin E_1 shows a peripheral plaque in the distal left corpus cavernosum (arrow) causing a visible deformity. There is no significant enhancement after contrast material administration. (b, c) Peyronie disease in a 32-year-old man. (b) Coronal T2-weighted MR image obtained after the intracavernosal injection of prostaglandin E_1 shows extensive plaque in the distal corpora cavernosa (arrowheads). (c) Gadolinium-enhanced gradient-echo MR image shows patchy, mild peripheral enhancement (arrows), most prominent in the peripheral plaque on the left side of the image.

References

- Hauck EW, Hackstein N, Vosshenrich R, et al. Diagnostic value of magnetic resonance imaging in Peyronie's disease: a comparison both with palpation and ultrasound in the evaluation of plaque formation. *Eur Urol.* 2003;43(3):293–300
- Schwarzer U, Sommer F, Klotz T, Braun M, Reifenrath B, Engelmann U. The prevalence of Peyronie's disease: results of a large survey. *BJU Int.* 2001;88 (7):727–730
- Kirkham AP, Illing RO, Minhas S. MR imaging of non malignant penile lesions. *Radiographics*. 2008 (28):837–853