

Peyronie's disease

Peyronie's disease is named after Frans de la Peyronie, Surgeon to King Louis XV of France in 1743 but was first described in the medical literature in 1561. The exact cause of the disease is unknown but there is evidence that trauma during sexual intercourse is a causal factor. The incidence is difficult to determine as mild forms are mostly undiagnosed but may be between 1% and 10% of men. The disease is characterised by a fibrous plaque formation involving the tunica albuginea of the corpora cavernosa (the tough fibrous capsule surrounding the erectile cylinders within the penis). Although the plaque typically forms on the dorsal (upper) or dorso-lateral surface of the penis under the neurovascular bundle, it may involve any area of the corpus cavernosum. Induration of the tunica albuginea results in focal loss of elasticity with impaired shaft elongation during penile erection. In the early stage of the disease, bending around the plaque during penile erection may result in pain. In severe cases, the bend may interfere with vaginal penetration or may cause dyspareunia (pain on intercourse for the partner). In severe Peyronie's disease, there may be an hourglass deformity or the penis distal to (beyond) the plaque may be flaccid during erection.

Natural history

The natural history of Peyronie's disease is variable with about 13% experiencing gradual resolution. It is typical for the discomfort to subside within about 6 months and the majority of patients do not suffer such extreme angulation that intercourse is impossible.

Treatment

Despite numerous options for treatment none have been clearly successful and the disease remains a therapeutic dilemma for urologists. Various oral drugs including Vitamin E and intra-lesional injections of steroids, verapamil etc have been attempted with varied claims of long-term success. Extra-corporeal shockwave therapy (ESWT) has been shown to be an effective conservative treatment for Peyronie's disease. In particular there is some benefit in reducing the angulation (47%) in patients with disease duration of over 12 months and reduction of pain (60%) on erection. In severe cases of Peyronie's disease surgical straightening may be required. This is easily achieved but it does not help restore any rigidity or length that may have been lost. Surgery may cause some further reduction in penile length and occasionally some loss of sensation. During the procedure a circumferential incision is made behind the glans penis, the skin pulled back and several parallel incisions are made into the corporal bodies and plicating sutures are applied to effectively shorten the convex side of the penis to straighten the penis. There is some risk in swelling of the foreskin in an uncircumcised patient post-operatively and some men will elect to have a circumcision at the same time. Hospitalisation is usually just one night. Immediate post-operative discomfort is minimal as long acting local anaesthetic is infiltrated during surgery. Discomfort may be experienced during spontaneous nocturnal erections for a couple of weeks. Dissolvable sutures closing the skin incision will gradually fall out or dissolve within a couple of weeks.

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