TEXAS UROLOGY

PEYRONIE'S DIEASE

The penis is composed of three cylindrical cavities. The two on top are called the corpora cavernosa, and the one on the bottom the corpus spongiosum, which contains the urethra (the tube that urine flows through). The two top corporal cavities expand to trap and hold the blood that produces an erection in the male. The bottom body, corpus spongiosum, functions mainly for the passage of urine. Each of these corporal bodies is surrounded by a very elastic covering, called the tunica albuginea. On top of the two corporal cavernosa are the superficial nerves and blood vessels of the penis.

On the back page of this handout is a cross-sectional diagram of the penis. It includes the:

1. Artery into each corporal body
2. Corporal bodies
3. Tunica albuginea or surrounding elastic tissue
4. Corpus spongiosum and urethra
5. Superficial nerves and blood vessels.

In Peyronie's disease (named after an Italian physician in the 1700's), the normal elastic tissue of the tunica is replaced by scar tissue. Normally with erection the elastic tissue of the penis expands and elongates symmetrically resulting in a straight erection. Because the plaque, or scar tissue, is not elastic, but rather hard, it will not stretch with erection. The lack of expansion at this point results in a curvature with erection. Most of the time the plaque is on the top surface of the penis causing an upward bend. However, plaques can occur at any point on the penis. In some patients, the penis beyond the plaque will not become as hard and rigid. Because of the inflammation initially associated with the scare tissue, there can be some discomfort with erection and distension. Many patients complain not only about the curvature of the erection, but the loss of length and girth. These are all results of the in-elastic tissue and lack of distention that results.

Peyronie's disease is an extremely common ailment, and we see 4-5 patients a week with this problem. We are not sure of the cause of Peyronie's disease. It is felt that there may be some connection with trauma or injury (most likely related to vigorous sexual intercourse). The injury causes a resulting inflammation in the tunica, and subsequently leads to scarring. Most patients are middle-aged, though the youngest patients we have seen have been in their twenties, and there are a number of sexually active men in their eighties with the disease.

One group of patients has the sudden onset of a curved erection with the previous erection having been straight. In the remaining patients, the disease is slowly progressive, but eventually reaches an end point. In most cases, the active process of Peyronie's diseases lasts less than a year. At the time the process stops the scar tissue may remain or in some cases disappear. Most patients with Peyronie's disease can continue to function sexually with the curvature in the penis. Rarely, some patients with greater distortion are unable to have satisfactory sexual intercourse.

Treatment options: Radiation, steroid injection into the plaques and Potaba have been used without significant success. In the past, using Vitamin E, which supposedly promotes healing and prevents scarring, at 200 units twice a day with meals was recommended. However, it is questionable whether this is of any benefit. Additionally, we prescribe anti-inflammatory medications.

One medication that has been of some benefit is the medication Verapamil, which has been used for a long period of time to treat heart problems. The medication Verapamil appears to dissolve or break up the scar tissue. Two delivery systems are available for the Verapamil. One is the direct injection of Verapamil through the skin, and the other is a topical cream. Almost all insurance companies do cover injection therapy.

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Numerous clinical studies have appeared in the Urology literature with the use of intralesional injections of Verapamil into the plaque. The procedure takes approximately 15 minutes and is recommended every other week for a total of 12 injections. First the penis is anesthetized at the base with a numbing agent and then pressure is applied for five minutes. Following this, the Verapamil is injected into the scar tissue and pressure is once again applied for 5-10 minutes. It is recommended that the patient not have intercourse for 24-48 hours. Bruising is not unusual. Injection therapy is considered the current standard of care for men wanting treatment of Peyronie's disease. This is done both to reduce the curvature, reduce the deformity of the erection, as well as to prevent progression. Patients tend to notice an improvement usually by the fourth to sixth injection.

Alternatively a pharmacist in San Antonio created a technique to deliver the Verapamil through the penile skin via cream. This has been available for a number of years. There was a single study that showed a 40-50% response for patients in terms of reduction of pain, curvature, and deformity. The only known side effect is mild skin irritation. This has still not been approved by the FDA, and the majority of insurance companies do not cover the cream which costs approximately $200 per month with the expectation that the cream will be used for three to six months.

Recently a company has developed a device that is worn on the penis for approximately four to six hours daily. The idea is to place the penis on tension and stretch out the scar tissue. Although initial response may seem dubious, there is a study that does show a significant improvement. In fact, one of the urologists on the advisory board is a world expert on Peyronie's disease and highly endorses the treatment and speaks of its success. The device may be viewed on the web page FastSize.com. Again, the device should be worn for approximately four to six hours a day and can take up to three months to see any benefit.

In conversations with the urologist, he found the best results were with the combination of the Verapamil injections and the device.

When the disease process stops, there is usually some residual distortion of the penis, but the vast majority of patients are able to function adequately sexually. Multiple surgical procedures are available. The easiest to perform is a simple outpatient procedure where stitches are used to straighten the penis. This does result in some further shortening of the penis. Alternatively, there is a surgical procedure that consists of removing the plaque or scar tissue and replacing it with a graft of tissue from somewhere else in the body. Since this is usually on the top surface of the penis, the nerves and blood vessels previously described must be elevated. The vast majority of patient who has to resort to the surgery is quite satisfied with the results. Some patients who already have problems attaining or maintaining erections are treated with straightening the penis and insertion of the penile prosthesis. This should only be performed in a very rare situation.