New treatment for enlarged prostate successful in dogs

Enlarged prostate is a common problem in older males (both humans and non-humans!). Parsemus Foundation sponsored a study by Dr. Raffaella Leoci to investigate a potential new non-invasive treatment in dogs with benign prostatic hyperplasia. The method was very effective at reducing the size of the prostate gland and we expect that it is relevant for human use too. The study was just published in the journal The Prostate.

What is benign prostatic hyperplasia?

Benign prostatic hyperplasia (BPH) is an age-related enlargement of the prostate gland. BPH is one of the most frequent medical problems in elderly males. In humans, it can result in urinary tract problems, obstruction of the urethra, sexual dysfunction and blood in the urine. One of the most frequent symptoms is having to get up to use the bathroom multiple times during the night. Older dogs also commonly have BPH and there is little difference from humans in anatomy, physiology and symptoms of this disease. The most common clinical sign of BPH in dogs is bloody fluid dripping from the penis not associated with urination. In severe cases it can obstruct the colon and result in constipation.

BPH results from urogenital aging. Recent studies suggest that an age-related impairment of the blood supply to the lower urinary tract plays a role in the development of BPH and thus may be a contributing factor in the pathogenesis of BPH.

Simple and effective treatment for canine prostate disease could also help humans

The new method used in the study to treat dogs with BPH was pulsed electromagnetic field therapy (PEMF). PEMF is a noninvasive method that generates both an electrical and
magnetic field and is used in orthopedics, neurology, and urology. It has been reported to have an anti-inflammatory effect and increases healing and blood circulation. The idea of using this method for BPH is to improve prostate blood flow and reduce the size of the prostate gland.

The study included 20 dogs with BPH. They received treatment with PEMF for 5 minutes, twice a day for three weeks. The device was simply held over the skin where the prostate is located. The study used a Magcell® Vetri device from Physiomed Elektromedizin AG, Germany.

An average 57% reduction in the size of the prostate resulted from PEMF treatment in only three weeks, a remarkable improvement. There was no interference with semen quality, testosterone levels or libido. Doppler parameters showed a reduction of peripheral blood resistances and a progressive reduction in resistance of the blood flow in the dorsal branch of the prostatic artery.

The efficacy of PEMF on BPH in dogs, with no side effects, suggests that it might be a great treatment in humans. The study also supports the hypothesis that impairment of blood supply to the lower urinary tract may be a causative factor in the development of BPH.

How does pulsed electromagnetic field therapy work?

The mechanism of action of PEMF on canine BPH is not exactly known and could involve several modalities. It may have an effect on nitric oxide or directly on inflammation. Recent research has shown that PEMF is mediated by an increase in nitric oxide synthesis, which may contribute to the pathogenesis of BPH. By reducing inflammation PEMF may prevent complications or may play a role in reducing changes linked to BPH and related conditions. By producing an increase in blood circulation, PEMF may also help to prevent secondary complications caused by reduced arterial blood flow such as
prostatitis (inflammation of the prostate gland) and improve BPH symptoms.

Next steps

A clinical trial could test whether this approach works as well in humans as in dogs. Parsemus Foundation can’t fund a human clinical trial, but is making the information available so that others can. Since clinical trials are expensive and take time to arrange, some men who are particularly bothered by BPH symptoms, haven’t had success with herbal medicine (like saw palmetto) and don’t want surgery may decide in conjunction with their doctors to get one of the devices and try it.

Sourced: http://www.medicalnewstoday.com/releases/278720.php