Pudendal entrapment neuropathy: a rare complication of pelvic radiation therapy.

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Abstract

Pudendal nerve entrapment (PNE) is an uncommon cause of chronic pain. Pudendal nerve entrapment typically occurs when the pudendal nerve is fused to nearby anatomical structures or trapped between the sacrotuberous and sacrospinalis ligaments. Pudendal nerve entrapment can be caused by excessive bicycling, pregnancy, anatomic abnormalities, scarring due to surgery, or as a sequela of radiation therapy. Radiation-induced peripheral neuropathy is usually chronic, progressive, and often irreversible. Radiation-induced pudendal neuropathy is much less common than the more familiar brachial plexopathy secondary to radiation treatment for breast cancer. The prevalence of PNE, however, is increasing due to improved long-term cancer survival. Diagnosis of pudendal neuralgia is essentially clinical; no specific clinical signs or complementary tests are reliably confirmatory. A detailed pain history with correlative clinical examination is paramount for accurate diagnosis. Performance of a pudendal nerve block can serve as both a diagnostic and therapeutic tool. Utilization of various imaging studies, as well as the performance of an electrophysiological study with pudendal nerve motor latency testing, may yield valuable evidence in support of a pudendal neuralgia diagnosis. We present the case of a 59-year-old man with stage IV prostate cancer, referred to the pain clinic for chronic perineal and right sided pelvic pain. His pain began insidiously, approximately 2 months after undergoing radiation treatment and chemotherapy 3 years prior. He was ultimately diagnosed as having a right sided pudendal entrapment neuropathy. His pain was refractory to all conventional treatment modalities; therefore we decided to pursue neuromodulation via a dorsal column spinal cord stimulator implant. Below, we describe the decision making process for the diagnosis and treatment of his pudendal neuropathy.

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