Case Reports

Dramatic relief of chronic pelvic pain with treatment with sympathomimetic amines - case report

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Summary

Purpose: To describe a novel treatment of chronic pelvic pain.

Methods: Dextroamphetamine sulfate was prescribed to a woman with unexplained chronic pelvic pain. Pelvic ultrasound, colonoscopy, and lower gastrointestinal radiographic studies were negative. Laparoscopy was offered as the next diagnostic test but the woman requested an attempt at medical therapy first. Based on previous experience of dramatic relief of chronic pelvic pain of bladder origin with sympathomimetic amine therapy she was started on dextroamphetamine sulfate.

Results: The relief of pain approximated 100% almost immediately and the pain relief has persisted for six months. Inadvertent failure to take the prescribed medication allowed the pain to return immediately only to disappear again once the medication was taken.

Conclusions: Disorders of the sympathomimetic nervous system may be a cause of chronic pelvic pain and are relieved by treatment with sympathomimetic amines.

Key words: Idiopathic edema; Pelvic pain; Endometriosis; Sympathomimetic amines.

Introduction

Chronic pelvic pain affects approximately 15% of the adult female population [1]. The American College of Obstetricians and Gynecologists defined chronic pelvic pain as "non-cyclic" pain of six or more months duration that localizes to the anatomic pelvis, abdominal wall at or below the umbilicus, lumbosacral back or the buttocks and is of sufficient severity to cause functional disability or lead to medical care [2].

Endometriosis and interstitial cystitis are the two most common causes of chronic pelvic pain syndrome [3, 4]. Frequently they occur together [3, 4].

There has been a report demonstrating the effectiveness of treatment with sympathomimetic amines for refractory interstitial cystitis [5]. The present case report demonstrates the effectiveness of sympathomimetic amine therapy for chronic pelvic pain without bladder symptoms.

Case Report

The patient was a 41-year-old female with right lower quadrant abdominal pain starting approximately in January of 2005. The pain was constantly present. She had had one pregnancy and delivery by cesarean section in August, 2002. In August 2005 when the pain began to increase in intensity and frequency she consulted her gynecologist. An ultrasound was performed and was normal. A Pap smear was also normal. She was tested for chlamydia and for Neisseria gonorrhea with negative results.

She then consulted her primary doctor who ordered a computed tomography (CT) on the abdomen and pelvis. The CT scan was normal. A urinalysis was done and came back negative, but 250 mg ciprofloxin was prescribed twice a day for seven days. This had no effect on the abdominal pain. A CBC and complete metabolic panel was performed and all results were within normal limits.

The patient next consulted a gastroenterologist who performed a colonoscopy and a radiographic study of the large bowel. Both of these studies were normal. The gastroenterologist thought it might be irritable bowel syndrome and prescribed hyoscyamine, .375 mg twice a day. After taking the medication for 30 days and getting absolutely no relief she went back to the gastroenterologist who then prescribed clidinium/CDP four times daily. The medication had no effect on the pain.

At this point the presumptive diagnosis was probable endometriosis. The recommendation was to perform a laparoscopy. The patient consulted us hoping to find an alternative to surgery.

On December 27, 2005 she did the standing water load test which showed only 52% excretion of a 1500 ml water load. On January 3, 2006 she was prescribed dextroamphetamine sulfate extend release capsules (Adderall), 20 mg, taken in the morning. Within about three hours she started to feel some relief from the pain. After taking the next dose the following morning the pain was almost completely gone.

The 20 mg of dextroamphetamine sulfate would get rid of the pain completely until about 7:00 or 8:00 p.m. After 30 days on 20 mg, the dose was increased to 30 mg. This dose completely eliminated the pain, but again would wear off in the late evening or very early morning.

After 30 days on 30 mg the dose was switched to 20 mg in the morning with another 20 mg in the late afternoon. The 20 mg of dextroamphetamine sulfate in the morning eliminated most of the pain but not all of it. After the second dose of the

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day the pain would go away completely but would return later in the day or early evening.

After another 30 days the dose was switched to 30 mg at about 6:00 a.m. followed by 10 mg around 1:00 p.m. and another 10 mg around 5:00 p.m. This regimen seemed to control the pain almost entirely as long as she did not forget a dose. On several occasions she would forget the dose in the evening. When this happened the pain would usually come back in the late evening or early morning. The marked improvement in pain has persisted for six months as long as the woman takes the dextroamphetamine sulfate as prescribed.

Discussion

A defect in the sympathetic nervous system possibly leading to various types of chronic pelvic pain is also associated with an inability to adequately clear a free water load in the standing position [5]. The original definition of idiopathic orthostatic cyclic edema required for diagnosis is ≤ 55% excretion of a 1500 ml water load in a four-hour period [6]. Our own studies suggest that even < 75% excretion in four hours of the water load in the erect position diagnoses the condition [7]. This patient actually fulfilled the more extreme criteria established by Thorn *et al.* [6].

Sympathomimetic amine therapy has also been employed in treating chronic refractory pain in other areas, e.g., chronic esophageal pain [8].

Because the woman did not have a laparoscopy one cannot state with certainty that she had endometriosis. Often times if a laparoscopy is performed and endometriosis is found, the pain abates for a long time or even permanently following laser ablation of the endometriotic implants. However, often times the removal of apparent endometriosis results in short or no relief. Following surgical therapy either oral contraceptives, progestins or GnRH agonists are prescribed.

There are women that are asymptomatic who are found to have extensive endometriosis following laparoscopy. Thus the possibility exists that in some women with chronic pelvic pain the pain is related more to a defect in the sympathetic nervous system even if endometriosis is present. Possibly, in these circumstances the endometriosis is not the actual cause of the pain and were it not for this abnormality in sympathomemetic amines, the endometriosis would have been asymptomatic.

However, it is also possible that even in circumstances where laser ablation of endometriosis results in relief of pain, that treatment with sympathomimetic amines could have also relieved the pain without surgical removal. We are planning to do a controlled study on the efficacy of sympathomimetic amine therapy in women with documented endometriosis who failed to attain adequate pain relief despite laparoscopic ablation of endometriotic implants.

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