Sympathetic nervous system disorder of women that leads to pelvic pain and symptoms of interstitial cystitis may be the cause of severe backache and be very responsive to medical therapy rather than surgery despite the presence of herniated discs

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Summary

Purpose: To describe a unique pharmacologic treatment for backache that seemed to be related to herniated discs. *Methods:* Dextroamphetamine sulfate was prescribed to a woman who developed acute lower backache which was attributed to herniated lumbar discs. *Results:* Within hours the pain diminished and she was pain free within a week. The 100% relief has persisted for months. *Conclusions:* Acute backache can be added to the long list of pain syndromes related to impairment of the sympathetic nervous system that is effectively treated with sympathomimetic amines.

Key words: Backache; Orthostatic edema; Sympathomimetic amines; Herniated disk.

Introduction

A relatively common disorder of the sympathetic nervous system, but unknown to most physicians, has been described that could be the cause of a large variety of complaints by women that do not seem to respond to conventional therapy [1]. These symptoms can include weight gain despite dieting, edema, vasomotor symptoms, chronic urticaria, and chronic fatigue. Various pain syndromes include fibromyalgia, arthritis, headaches, mastalgia, gastrointestinal pain from motility defects of the esophagus, stomach, and intestines, bladder pain and pelvic pain [1].

Despite failure to significantly improve these symptoms with various medical and surgical treatments, there have been reports of quick, effective long lasting relief of these various symptoms following therapy with the sympathomimetic amine dextroamphetamine sulfate [1-14].

Added to the long litany of conditions with seemingly obscure etiology refractory to conventional therapy but very sensitive to effective response to sympathomimetic amine therapy should be backaches even when it seems probable that the pain is related to herniated disks as described in this case report.

Case Report

The patient, a 44-year-old female, had right lower quadrant abdominal pain starting approximately in January of 2005. 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 which was normal. 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 computed tomography (CT) of the abdomen and pelvis. The CT was normal. A urinalysis was done and came back negative, but 250 mg ciprofloxacin was prescribed twice a day for seven days. This had no effect on the abdominal pain. A CBC with differential/platelet count and complete metabolic panel was done. All results were within normal limits.

The patient next consulted a gastroenterologist who performed a colonoscopy and lower GI. Both of these were normal. The gastroenterologist thought it might be irritable bowel syndrome and prescribed hyoscyamine (0.375 mg twice a day). After taking the medication for 30 days and getting absolutely no relief the patient went back to the gastroenterologist who then prescribed clidinium/CDP four times daily. The medication had no effect on the pain.

An endoscopy was also done – all results were normal. The patient was in the process of scheduling a laparoscopy when she had a consult at our clinic. A water load test was suggested. The erect water load test results came in under 55%. In January 2006 the woman was prescribed dextroamphetamine sulfate extended release (Adderall), 20 mg, taken in the morning. Within about three hours there was some relief from the pain. After taking the medication the following morning the pain was almost completely gone. The 20 mg dosage would get rid of the pain completely until about 7:00 or 8:00 at night.

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.

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After 30 days on 30 mg the dose was switched to 20 mg in the morning with another 20 mg later on in the afternoon. The 20 mg of Adderall in the morning eliminated most of the pain but not all of it. After the second dose of the 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 about 6:00 in the morning, followed by 10 mg around 1:00 p.m. and another 10 mg around 5:00 p.m. This regimen controlled the pain entirely. The patient continued to take the medication until it became a problem prescribing it off label in the state of New Jersey.

She was off the dextroamphetamine sulfate for almost a year and managed the pain with large dosages of acetaminophen.

In January 2009 the patient was having severe lower back pain due to three herniated disks (L4, L5, and S1). She also had severe pain radiating down into her hips and legs. She had a previous back injury from 1995. Her doctor prescribed tramadol and a muscle relaxant with very little relief. A methelprednisolone dose pack did not help either. Her doctor recommended surgery to repair the disks.

After another consult at our clinic we suggested trying sympathomimetic amine therapy again to see if that would help the pain. She was placed back on the 30 mg, 10 mg, 10 mg dosage. After only two doses of dextroamphetamine sulfate (aderall xr) she had almost complete relief from the pain. After a week on adderall the pain was entirely gone.

Discussion

Treatment with sympathomimetic amines saved this woman from undergoing surgery which may have left her with other complications. This is twice the treatment with dextroamphetamine sulfate which saved the woman from surgery. She was the subject of the case report on the use of sympathomimetic amines to treat pelvic pain [11]. Her excellent suppression of pelvic pain stopped her from undergoing a laparoscopy to look for endometriosis which was planned to be the next step [11].

There is the possibility that the deep pelvic pain, cyclical pelvic pain, deep dyspareunia, introital dyspureinia (vulvovaginitis and vulvadynia) and dyspuria without infection (interstitial cystitis) may have a common etiology [11, 15]. Surgery for these conditions are not that effective and it makes sense to try medical therapy first.

Edema in a closed space may cause nerve entrapment and pain, e.g., carpal tunnel syndrome where sympathomimetic amine therapy has also proven effective [1, 16]. Thus women with backaches that are not responding to conventional medical therapy should have a trial of sympathomimetic amines before being subjected to surgery, especially if there is clinical evidence of orthostatic edema, or the woman does not pass the water load test.

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