Dextroamphetamine sulfate, a very effective drug for pelvic pain relieved severe retroorbital stabbing pain in a woman with keratoconus who failed to respond to bilateral corneal implants

J.H. Check[1,2], G. DiAntonio[2], R. Cohen[2,3]

[1]Cooper Medical School of Rowan University, Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology & Infertility, Camden, NJ
[2]Cooper Institute for Reproductive Hormonal Disorders, P.C., Marlton, NJ
[3]Philadelphia College of Osteopathic Medicine, Department of Obstetrics and Gynecology, Philadelphia, PA (USA)

Summary

Purpose: To determine if dextroamphetamine sulfate therapy could relieve severe headaches related to keratoconus of the eyes. *Materials and Methods:* Dextroamphetamine sulfate 20 mg daily was prescribed to a 45-year-old woman who complained of 20 plus years of severe stabbing retrorbital pain who was diagnosed with keratoconus but failed to gain relief from bilateral corneal implants. *Results:* Dextramphetamine sulfate quickly and very effectively relieved the pain which has remained completely abrogated for over five years. Proof that the improvement was not fortuitous was demonstrated by quick return of symptoms when the drug was temporarily stopped after 2.5 years of relief but quickly dissipated upon resumption of therapy. *Conclusions:* Headaches are common in women. It is the gynecologist (who is more familiar with the condition of sympathetic neural hyperalgesia edema syndrome because it is the most common cause of pelvic pain) who may be the physician to introduce dextroamphetamine sulfate as a treatment since this condition is unknown by many specialists in other fields.

Key words: Retro-orbital pain; Keratoconus; Sympathetic hypofunction; Dextroamphetamine sulfate.

Introduction

The gynecologist is frequently consulted by women about chronic headaches not only because they are the primary care health physician for women but because there are gynecologic hormonal disorders, e.g., menopause, associated with headaches. Also some women complain about headaches associated with the menstrual cycle especially pre-menstrually. It is well known that the estrogen in oral contraceptives can cause migraine headaches.

There is another condition that is a relatively common cause of chronic standard treatment refractory migraine headaches caused by hypofunction of the sympathetic nervous system [1-3]. The sympathetic nervous system controls cellular permeability and hypofunction leads to the absorption of chemicals and toxins into tissues leading to inflammation and pain. Various physiological systems may be affected causing pain in various areas, muscle fatigue, and poor function involving skeletal muscle (causing fatigue) and smooth muscle (causing gastrointestinal motility disorders) and capillary vesicle permeability leading to urticaria and fluid retention [4, 5].

Unfortunately despite quick long lasting effective relief of symptoms following treatment with the sympathomimetic amine dextroamphetamine sulfate, most specialists, including neurologists, do not seem to be aware of this condition. The group of physicians most aware of this condition are gynecologists since this condition of the hypofunction of the sympathetic nervous system is the main cause of chronic pelvic pain which generally responds very well to dextroamphetamine sulfate [6, 7].

The gynecologist, playing the role of primary care physician for women, has to determine when to offer dextroamphetamine sulfate therapy and when to simply refer the patient to another specialist. Sometimes a specific diagnosis is made that seems to be outside of the gynecologists expertise. However, sometimes if the response to therapy by the particular specialists has not been especially good, the gynecologist should reconsider dextroamphetamine sulfate therapy.

A perfect example is a case of severe retroorbital pain from keratoconus, which would seem strictly an ophthalmologic entity, which failed to respond to corneal implants but responded very well to dextroamphetamine sulfate therapy.

Case Report

A 22-year-old woman was referred to an ophthalmologist for severe retro-orbital pressure in both eyes with severe stabbing pain behind the eyes. She was diagnosed with keratoconus, i.e., curvature of the cornea.

Revised manuscript accepted for publication June 24, 2013

After trying various oral and ophthalmologic preparations which all failed to improve her symptoms, the ophthalmologist recommended a corneal transplant for the worst eye, i.e., the right. The surgery did relieve some of the eye pressure but did not help at all the stabbing retro-orbital pain.

She suffered for the next 13 years. A different ophthalmologist suggested that she may experience significant improvement in the stabbing pain that persisted by having a corneal transplant in the left eye. Despite the corneal transplant there was no improvement in the retro-orbital stabbing pain.

She continued to suffer for another ten years. She consulted a top specialist at one of the world's leading hospitals dedicated to ophthalmology and the consulting physician who told her that her eyes were useless and no further surgery could be done.

At the age of 45 she consulted our practice because she had heard from other acquaintances who had been treated successfully with dextroamphetamine sulfate despite failure to respond to various other treatments. Her pain was completely abrogated within two weeks of treatment with 20 mg dextroamphetamine sulfate.

She continued with no pain for 2.5 years. A shortage of dextroamphetamine sulfate developed so the woman thought that this was a good time to see if the treatment was still needed. The intense stabbing pain behind the eyes returned within one week and lasted for another month. The pain quickly ceased once again after she resumed the treatment with the sympathomimetic amine.

Discussion

If the woman had been seen in our office we would have thought it appropriate to seek the opinion of a neurologist and/or ophthalmologist for her complaints. Most likely we would not have challenged the impression that the stabbing pain was related to keratoconus and that corneal transplants would correct the problem.

However, in view of this case, if we saw a similar patient now we would still refer the woman to a neuro-opthalmologist. However if a surgical procedure was recommended and the surgery was strictly for the pain, but was not a procedure of necessity otherwise, our suggestion would be to first try dextroamphetamine sulfate therapy.

Perhaps it would seem prudent to merely defer treatment to the neurologist or neuro-opthalmologist but make them aware of this condition of hypofunction of the sympathetic nervous system and the great improvement seen in people with the sympathetic neural hyperalgesia edema syndrome following treatment with dextroamphetamine sulfate. However, we submitted another case report "Severe headaches from pseudo-tumor cerebri abrogated by dextroamphetamine sulfate". The gynecologist would be relieved to know that if they had referred this patient to a neurologist the patient was found to have papilledema. This could have been a brain tumor but when tumor was excluded, the diagnosis was intracranial hypertension or pseudotumor cerebri. Clearly this would seem to be a case for the neurologist. However, standard treatment failed to show improvement in the headache or papilledema. We tried dextroamphetamine sulfate and in a short time the headaches completely disappeared. She had an appointment with the neuro-opthalmologist and we were hoping to transfer the treatment responsibilities back to the neuro-opthalmologist. A letter was sent explaining this defect in sympathetic nervous system hypofunction and the mechanism of action for dextroamphetamine sulfate. As the patient was having her fundoscopic examination, she explained her quick and completely effective headache relief from sympathomimetic amine therapy. The examining physician showed no interest in the patient's improvement with the drug and merely stated "your papilledema is completely gone. I will see you in six months". Thus, the primary gynecologist has to remain vigil over diagnostic tests and treatment recommended by referring specialists and sometimes must intervene with therapy if the consultant is recalcitrant to new ideas.

Awareness of this condition and therapy can save patients pain, suffering, risk, and the expense. A 42-year-old woman seeking help for infertility stated that she may have to delay fertility testing for two months because she has had severe daily migraine headaches for 60% of each day which was attributed to temporomandibular joint (TMJ) syndrome which developed 22 years before from grinding her teeth from the pressures of law school and was scheduled in ten days for a new procedure where her jaw would be broken and then reset and it would cost her USD 8,000.00 out of pocket expense and her jaw would be wired and she would temporarily have to stop work for six weeks. We suggested that she try the dextroamphetamine sulfate before undergoing surgery and she had complete resolution of the headaches within one week. Thus surgery was cancelled.

Thus though most gynecologists would not know much about TMJ and would just not interfere with planned surgery. Thus the gynecologist, as the gatekeeper, has the responsibility to sometimes step in and treat other healthcare problems of women that seem to be out of the normal realm of obstetrics and gynecology. This case with more details has been submitted as a case report to Clinical and Experimental Obstetrics and Gynecology.

Thus if a woman would mention to the gynecologist that she has severe stabbing pain behind the eyes, and after referral to appropriate specialists a diagnosis of keratoconus is made, the gynecologist may suggest that rather than corneal implants one may consider dextroamphetamine sulfate therapy first. Of course the gynecologist should ascertain whether corneal surgery was needed other than to relieve headaches and with this information help advise the patient to make the right decision.

References

[1] Check J.H., Cohen R.: "Marked improvement of headaches and vasomotor symptoms with sympathomimetic amines in a woman with the sympathetic hyperalgesia-edema syndrome". *Clin. Exp. Obst. Gyn.*, 2011, *38*, 88.

[2] Check J.H., Cohen R., Check D.: "Evidence that migraine headaches in women may be related to a common defect in the sympathetic nervous system as evidenced by marked improvement following treatment with sympathomimetic amines". *Clin. Exp. Obst. Gyn.*, 2011, *38*, 180.

[3] Check J.H., Check D., Cohen R.: "Sympathomimetic amine therapy may markedly improve treatment resistant headaches related to a vascular permeability defect common in women". *Clin. Exp. Obst. Gyn.*, 2009, *36*, 189.

[4] Check J.H., Katsoff D., Kaplan H., Liss J., Boimel P.: "A disorder of sympathomimetic amines leading to increased vascular permeability may be the etiologic factor in various treatment refractory health problems in women". *Med. Hypothesis*, 2008, *70*, 671.

[5] Check J.H., Cohen R., Katsoff B., Check D.: "Hypofunction of the sympathetic nervous system is an etiologic factor for a wide variety of chronic treatment-refractory pathologic disorders which all respond to therapy with sympathomimetic amines". *Med. Hypoth.*, 2011, *77*, 717.

[6] Check J.H., Katsoff B., Citerone T., Bonnes E.: "A novel highly effective treatment of interstitial cystitis causing chronic pelvic pain of bladder origin: case reports". *Clin. Exp. Obst. Gyn.*, 2005, *32*, 247.

[7] Check J.H., Cohen R.: "Chronic pelvic pain – traditional and novel therapies: Part II medical therapy". *Clin. Exp. Obst. Gyn.*, 2011, *38*, 113.

Address reprint requests to:
J.H. CHECK, M.D., Ph.D.
7447 Old York Road
Melrose Park, PA 19027 (USA)
e-mail: laurie@ccivf.com