Expert Opinion

Orgasm and Migraine

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Occasionally, orgasm can trigger a migraine but, in others, can relieve a migraine. Dr. Couch's data suggests that some women who decline, "Not tonight, I have a headache," may be avoiding an effective treatment.

CLINICAL HISTORIES

Patient 1.—A 41-year-old woman was seen with a 20-year history of similar recurring headaches. Approximately 50% of the time, she will see squiggly lines in both visual fields for a few minutes and then develop a nonthrobbing pain in the back of her head associated with nausea, and light and noise sensitivity lasting up to 3 days. The headaches have been occurring about once every 1 to 2 weeks. Triggers have included menses, chocolate, margaritas, stress, and letdown after stress. For about the last 5 years, about 90% of the time when she has an orgasm, she immediately develops a typical headache without aura which can last up to 3 days. Her internist had tried metoprolol which was not effective as a preventative medication. A magnetic resonance imaging scan of the brain about 5 years ago was normal. Neurological examination was normal.

Questions.—How often are orgasms a trigger for migraine? What treatment would you recommend for this patient's orgasmic migraines? Are there other physical activities which can be triggers for migraine? Is benign orgasmic cephalgia in patients without other headaches a form of migraine?

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Patient 2.—This 52-year-old man has a 25-year history of migraine without aura. The headaches can last all day and are dulled by over-the-counter medications. If he has an orgasm, the headache goes away within minutes.

Questions.—Is it common for orgasm to relieve an acute migraine? Are there physical activities which relieve migraine for some people?

EXPERT COMMENTARY

The two patients presented here represent the opposite ends of the spectrum of sexual activity in headache. In patient 1, this 41-year-old woman has a fairly typical history of migraine. She has an aura of "squiggly lines" in front of her eyes for a *few* minutes, and then will develop a posterior headache associated with nausea and light and noise sensitivity. As indicated, triggers have included menses, chocolate, alcohol, stress, and letdown. This patient clearly has migraine based on the presence of a recurrent headache associated with nausea, photophobia, and phonophobia which is provoked by some of the usual migraine triggers. Since the patient was bothered enough to see a neurologist, which usually requires referral from a primary care physician, it would appear safe to assume that she had a severe enough headache to interfere with daily activities and probably physical activities. Thus, this headache meets a "common sense" interpretation of the International Headache Society (IHS) criteria.

A second question is whether her visual symptoms would meet the IHS definition of a migrainous aura. We are told the patient has squiggly lines or probably "heat waves" in both eyes for "a *few* minutes" prior to the headache. It is unclear whether this lasts 3 minutes and 59 seconds or less which would disqualify

it from being a migraine aura symptom by IHS criteria, or whether it lasts 4 minutes and 1 second which *would* qualify it for being a migraine aura symptom.

In a study done by our group, there was no difference in headaches associated with visual symptoms of more than or less than 5 minutes' duration,[1] whether the symptom lasted from 1 to 5 minutes, less than 1 minute, or occurred intermittently and recurrently throughout the headache. Likewise, it made no difference whether the neurologic symptom occurred before or during the headache. For all of these groups, the headaches were indistinguishable in terms of their symptomatology.

Finally, this patient's headache lasted for 3 days which clearly fulfills criterion B (of the IHS classification) for migraine without aura. Consequently, this patient probably suffers migraine with aura which has occurred intermittently over a 20-year period.

With regard to the recent onset of orgasmic headache, this represents another interesting problem. The incidence of orgasmic headache is unknown. Most of the patients with this problem are reported from clinics of individuals interested in headache. The extent to which this problem may exist outside of the headache clinic or even the primary care physician network, is not known with certainty. In my experience, as well as that of Evans and Pascual,[2] most of these patients have a background of migraine. They have the headache with orgasm or with proximity to orgasm. In women with orgasmic headache who have been seen in my clinic, participating in sexual activity without achieving orgasm may result in no headache or a mild transient headache. As the patient experiences orgasm, there is a severe explosive headache which is typically bilateral and which may last from minutes to hours. This headache is typically not associated with nausea, vomiting, photophobia, or phonophobia. Several patients described being able to suppress the headache by suppressing orgasm or by discontinuing sexual activity. Several reported they did not experience the orgasmic cephalgia with every instance of sexual intercourse. In those instances in which I have had an opportunity to follow these patients over a longer period of time, there has typically been spontaneous remission.

With regard to treatment, the use of indomethacin prior to intercourse has been variably successful. One patient noted diminished frequency and intensity of orgasmic cephalgia with amitriptyline prophylaxis for her migraine.

In the second case, another interesting aspect of sexually associated migraine activity is mentioned. This individual has a history of migraine without aura, but has relief of the headache with orgasm. There is very little information on this subject in the literature. In a report from the Headache Clinic at Southern Illinois University, a study of relief of migraine with sexual intercourse in women was undertaken.[3] In this retrospective study, a group of 83 women were questioned as to whether they had had sexual intercourse during headache; 57 of them indicated they had (Table). In terms of current format for reporting triptan study results, 10 (17.5%) were pain-free, and another 30% had some relief. Note that the "pain-free" response is twice the pain-free response of approximately 9% reported for placebo in most studies. Almost half of those who employed this nondrug therapy received some degree of relief. Of the remainder, only 3 patients (5.3%) were worse. While this figure is somewhat higher than seen with triptan studies, it is not a great difference.

It has been demonstrated that stimulation of the posterior vagina in rats will produce an analgesic effect.[4] The authors postulate that this is a physiologic reflex related to the birth process to produce pain relief when the cervix and pelvic outlet are stretched. Such a mechanism might account for the temporary relief group, but would not account for the permanent and total relief group. For the group with ongoing relief, whether complete or partial, (26% of those who had tried sexual intercourse during a headache) it would appear that there is some factor related to the sexual orgasm that either suppresses pain or perhaps more specifically suppresses the migraine process per se. If there is a central generator for migraine, as has been postulated by Raskin and colleagues[5] and by Weiller et al,[6] perhaps the orgasm is able to alter activity of this generator.

While the study noted above did not deal with men, there is occasional anecdotal information suggesting that relief with sexual orgasm may occur in men. I recently saw a patient who noted that orgasm would relieve his cluster headache.

The study by Couch and Bearss points out the major problem that is seen with any treatment of migraine. The triptans, which are highly successful mi-

Relief of Migraine With Sexual Intercourse (SI) in Women*

Degree of Relief	No. (%) of Women	% Reporting Having SI During Migraine
Complete relief	10 (12.2)	17.5
Moderate relief (30% to 50%)	5 (6.1)†	8.8
Temporary relief (≤60 min)	7 (8.5)	12.3
Relief only for mild headaches	5 (6.15)†	8.8
Any relief	27 (32.9)	47.4
No relief	28 (34.1)	49.1
Worse	3 (3.7)	5.3
Never had SI during migraine	25 (30.5)	—
Total	83 (100)	69.9

* Data from Couch and Bearss.[3]
† One patient experienced a different degree of relief with different kinds of headache intensity.

graine abortive agents, are effective 80% to 85% of the time. The fastest triptan therapy is injectable sumatriptan which may produce onset of relief within 10 to 20 minutes in some patients and relief within 1 hour in approximately 75% of patients. In my experience, intravenous dihydroergotamine (DHE) produces good relief of migraine headache in approximately 70% to 80% of patients. In many of the cases, the relief is seen within 5 to 10 minutes of injection of DHE. In the case of both of these treatments, between 50% to 66% of the patients have complete relief, while the remainder of those reporting relief have incomplete relief with the headache reduced to a level of mild. The experience with these two serotonin agonists indicate that partial relief and complete relief can both be seen in dealing with headache problems. It is then not surprising that orgasm might produce partial relief in some patients, complete relief in other patients. It would appear that orgasm is significantly less effective than triptans or DHE, but when effective, the onset of relief is faster than with parenteral sumatriptan.

The issue of suppression of headache by orgasm does bring up the possibility of suppression of one multi-faceted, presumably neural origin syndrome (migraine) by another neural event (perception of sexual orgasm). Perhaps there are other situations in which an indigenous neural process might be used to suppress migraine. Certainly there are some interesting theoretical possibilities here.

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