Chapter 23

The Man Who Was Afraid to Have Sex

Lawrence C. Newman, MD

Case History

A 28-year-old male presents to your office complaining of a 2-week history of a "new" type of headache, the most recent of which occurred the previous night. Over the past 2 weeks, the patient reports that he has had four episodes of a severe global headache. The pain is throbbing in quality, instantly reaches maximum intensity, and persists for approximately 2 hours. He denies photo-, phono-, or osmophobia, autonomic symptoms, fever, nuchal rigidity, or the presence of any neurologic deficits associated with the head pain. On two occasions, he reports that he was nauseated during the headache but denies vomiting. Upon further questioning, the patient admits that all four of these headaches have occurred during sexual intercourse with his wife, always at the moment of orgasm.

The patient is in otherwise good health, although he does have a 15-year history of migraine without aura that he successfully aborts with a triptan. He did not take his usual medications for these "new" headaches, because they were unlike any of his typical migraines. He tells you that he is very concerned that he "burst a blood vessel in his head" and has sworn off sex for the rest of his life. His general medical and neurologic examinations are normal.

Questions on the Case

Please read the questions, try to answer them, and reflect on your answers before reading the author's discussion.

- What is the differential diagnosis of headaches occurring during sexual activity?
- What studies are appropriate to establish the diagnosis in this patient?
- How would the work-up differ had the patient not presented so soon after his most recent headache?
- How do you assuage his fears of sexual intimacy?
- What are the treatment options for this patient?

Case Discussion

In general, patients complaining of headaches that occur with a sudden explosive onset, or in which the head pain is precipitated by exertion, coughing, straining, or during sexual activity, should be thoroughly evaluated for a secondary cause. Also, patients who experience a change in an established pattern of headaches should undergo an evaluation to rule out organic causes of their headache. The differential diagnosis of headaches of sudden onset includes subarachnoid and other types of intracerebral hemorrhage, pituitary apoplexy, meningitis, sagittal sinus thrombosis, pheochromocytoma, and thunderclap headache. Exertional headaches, including those precipitated by sexual activity, may be caused by lesions in the hindbrain or within the cerebral spinal fluid (CSF) pathways, and by intracerebral or subarachnoid hemorrhage. Primary (benign) forms of headache associated with sexual activity are also a possibility, but the criteria needed for the diagnosis is predicated on first excluding secondary causes of headache.

Our patient presents with a sudden explosive headache, recurring four times in the past 2 weeks, each time during sexual activity. Although he has a prior history of migraine without aura, he tells us that this "new" headache is unlike any of his previous migraines. In essence, he has provided us with a number of important red flags; sudden-onset headache, headache with exertion, and a change in his usual pattern, and therefore requires a comprehensive eval-

uation. As his most recent headache occurred the previous evening, the initial work-up must include a computed tomography (CT) scan of the brain to search for the presence of blood. A magnetic resonance imaging (MRI) scan this early in the course would be unreliable in detecting a fresh hemorrhage. If subarachnoid blood is discovered on CT, angiography, and if positive for aneurym, then surgery should follow. If, however, CT does not reveal blood, a lumbar puncture (LP) must be performed, as CT misses approximately 5% of subarachnoid hemorrhages. If the CT and LP are negative, evaluation of the posterior fossa, CSF pathways, and cervical spine with MRI is considered by many to be the next step.

Had our patient delayed his office visit for several weeks or longer since his last headache, his work-up would be different. After several weeks have passed, the yield of CT dramatically falls, as does the presence of xanthochromia in the CSF, even through spectrophotometry. In this circumstance, a contrast-enhanced MRI of the brain and a MR angiography or CT angiogram of the cerebral vasculature should be performed. Fortunately, our patient had a normal CT and lumbar puncture. Since he has suffered from four recent headaches, all with a similar presentation, our work-up is finished.

Headaches with sexual activity occur more often in men than women; it has also been reported to occur more commonly during illicit sexual encounters. These headaches have also been referred to as benign coital or benign orgasmic headaches. As they do not have to occur during sexual intercourse (similar headaches provoked by masturbation and during nocturnal emissions have been reported) or with orgasm, the International Headache Society (IHS) classified these in 1988 as primary headaches associated with sexual activity. Three varieties of these headaches were originally described; a dull type, an explosive type, and a postural type. In the second edition of the *International Classification of Headache Disorders* (2004), primary headache associated with sexual activity is now separated into preorgasmic and orgasmic headaches (Table 23-1).

Preorgasmic headaches (previously classified in 1988 as the dull subtype) occur in approximately 20% of sufferers. These headaches resemble tension-type headaches, in that they are characterized by a dull ache in the muscles of the head and neck. These headaches are bilateral, beginning as sexual excitement builds, and can be prevented or reduced by deliberate muscle relaxation.

Orgasmic headaches (previously called the explosive subtype) are the most common, accounting for approximately 75% of cases. It is estimated that 25% of these sufferers also have preexisting migraine headaches. These headaches begin abruptly, at the moment of orgasm, and may be caused by an increase in blood pressure. The pain is excruciatingly severe, most often described as explosive or throbbing, and may be frontal, occipital, or generalized. On occasion, this type of headache may be associated with nausea and vomiting. These headaches typically last from 1 minute to 3 hours.

Table 23-1. Diagnostic Criteria for Primary Headache Associated with Sexual Activity

Preorgasmic headache
A. Dull ache in the head and neck associated with awareness of neck and/or jaw muscle contraction and fulfilling criterion B
B. Occurs during sexual activity and increases with sexual excitement
C. Not attributed to another disorder
Orgasmic headache
A. Sudden severe ("explosive") headache fulfilling criterion B
B. Occurs at orgasm
C. Not attributed to another disorder*
Note*:
On first onset of orgasmic headache, it is mandatory to exclude condi tions such as subarachnoid hemorrhage and arterial dissection.

Adapted from Headache Classification Committee of the International Headache Society, 2004.

The postural variety is the least common subtype, affecting approximately 5% of sufferers. This headache resembles the headache that follows LP, in that it worsens with sitting or standing and is relieved by recumbency. It may be caused by a rent in the dura that spontaneously develops during sexual activity. This rare subtype is no longer included in the IHS classification of headaches associated with sexual activity. Instead, these headaches are now classified as headaches attributed to spontaneous low CSF pressure.

Having excluded structural disease and ruled out infection and hemorrhage, our patient can be diagnosed with the orgasmic subtype of primary headaches associated with sexual activity. As similarly described in one-quarter of affected individuals, this patient too has a history of preexisting migraine. Although he is relieved that his is not a serious disorder, he is still reluctant to engage in sexual activity. Headaches occurring with sexual activity are unpredictable; they often recur during several encounters over a brief period of time and never return again, while other patients experience them at infrequent intervals throughout their lifetime. Often, patients can lessen the severity of an impending attack by stopping the sexual activity as soon as the headache begins. Therefore, the first step in managing these patients is reassurance. Counsel the patient (and partner) that this is a benign, usually self-limiting condition. For patients who suffer from frequent, recurrent episodes, preventive strategies should be employed. Indomethacin 25 mg tid with meals often prevents attacks. Other options include the use of oral ergotamine tartrate taken a few hours prior to when sexual activity is planned, or prophylaxis with the beta-blocker propranolol 40 to 200 mg daily, which unfortunately may

interfere with male sexual function. One patient has been reported in whom treatment with the calcium channel blocker diltiazem 60 mg tid was successful.

Our patient, after reassurance *and* a prescription for indomethacin, did eventually engage in sexual relations with his wife. When he returned for his follow-up visit 1 month later, he had discontinued the indomethacin and did not have a recurrence of his headache. His wife too was relieved—and 2 months pregnant!

Management Strategies

- Beware of "red flags"; sudden explosive headaches, headaches with Valsalva (exertion, coughing, straining) or during sexual activity, or a change in headache pattern needs prompt and thorough work-up.
- Order a CT to rule out acute hemorrhage; if suspicious, do an LP even if CT is negative.
- Perform an MRI of posterior fossa and cervical spine to rule out lesions within CSF pathways (colloid cyst, Chiari type-I malformation).
- If there is a delay in presentation, conduct MRI, MRA, and CT angiography scans.
- Assign the primary headache diagnosis only after secondary causes have been excluded.
- Reassure the patient and partner.
- If headaches are recurrent, then employ pharmacologic strategies.

Case Summary

- The patient is suffering from primary headache associated with sexual activity.
- There are two forms of primary headaches associated with sexual activity: preorgasmic and orgasmic.
- When newly present, secondary causes of headache such as subarachnoid hemorrhage and lesions of the posterior fossa, CSF pathways, and cervical spine must be excluded.
- The mainstay of treatment of the primary forms of headaches associated with sexual activity is reassurance, both of the patient and their partner.
- Preventative therapies with indomethacin, ergotamine tartrate, propranolol, or diltiazem are usually effective.
- For most patients, these are self-limited disorders.

Selected Readings

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Editorial Comments

Dr. Newman has emphasized the critical issues related to patients presenting with sexual headache. The most important task for the clinician is to rule out a secondary cause, especially aneurysm. Importantly, it is the first headache that is the most problematic, and once the secondary causes are eliminated and the diagnosis of *primary* headache associated with sexual activity is established, then reassurance often works better than preventive medications. Nevertheless, it is widely felt that these headaches are indomethacin-responsive, both preventively and acutely until they spontaneously resolve, because a large number of these headaches begin and end with no known cause or influencing factors.

Final diagnosis:

Primary headache associated with sexual activity, orgasmic type