Orgasm Treatment in Migraine: A Native and Costless Choice? A Clinical Observation

Orgazm Tedavisi: Doğal ve Maliyetsiz Bir Seçim? Klinik Bir Gözlem

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ABSTRACT

To relieve headache, some people may resort to non-drug alternatives. In this paper, an unusual patient using orgasm for treatment of migraine attack is presented. On the basis of pain system and analgesic neuro-peptides, the possible mechanism of action of orgasm treatment for migraine headache is discussed. Additionally, it is emphasized that this unusual observation could open up new areas of research in development of new effective treatments for acute migraine attacks. (Archives of Neuropsychiatry 2011;48: 268-9)

Key words: Orgasm, migraine, pain, opioid peptides

Introduction

Orgasm can trigger a migraine attack in some people but, in some, it can be a relieving factor (1,2). In this report, I present the unusual case of a patient with migraine who was using masturbation habitually to alleviate the pain attack.

Case Report

A 44-year-old woman had a 26-year history of migraine with aura. Her first migraine attack emerged when she was 18 years old. After a one week-treatment with estradiol-norgestrel combination for menstrual irregularity, she suddenly saw scintillating squiggy lines first and then, a scotoma expanding peripherally. As shrinking and disappearing of scotoma within 15 minutes, a left hemicranial throbbing pain developed. The pain lasted about 6 hours with moderate severity. Similar recurring headaches occurred about once or twice a month with occasional attacks without aura. She was diagnosed with migraine with aura after approximately six months and started to use 550 mg naproxen sodium for pain attacks. Someday, the boyfriend of the patient compelled her to have sex when she had a migraine attack that nearly just started. After she had an orgasm, the headache subsided and went away within minutes without recurrence. Thereafter, she started to use clitoral masturbation and orgasm for the treatment of migraine attack, when pain was still mild and sometimes moderate, and certainly, if environmental conditions were appropriate. Almost all mild headache attacks and most of moderate headache attacks responded to orgasm. Severe, throbbing pain generally did not relieve with orgasm treatment.

Discussion

In the literature, there is very little information on relief of migraine headache with orgasm. The report of Couch and Bearss (1990) suggested a beneficial effect of sexual intercourse compared to triptans (1). Evans and Couch (2001)
reported a case with migraine headache relieved within minutes after orgasm (2). Unlike the previous reports, the patient presented here is a unique case considering the use of orgasm as a therapeutic option.

Whipple and Komisaruk (1985) reported that in women, pain thresholds are increased during vaginal orgasm (3). However, the case presented here used clitoral orgasm, not vaginal orgasm and headache disappeared without recurrence. Therefore, a specific mechanism working in both clitoral and vaginal orgasm must be considered. Such an analgesic mechanism may be explained by suppression of the central migraine process.

It has been demonstrated that the insular cortex and anterior cingulate cortex are activated during orgasm (4). Interestingly, these cortical regions are also activated during painful stimulation (5). It seems that these areas are involved in both pain and pleasure.

The patient presented here used only clitoral orgasm to relieve migraine headache. There is no functional MRI data in the literature referring to brain stimulation during clitoral orgasm. Available data are limited to studies on vaginocervical-induced orgasm.

The anal canal receives sensory projections through the pudendal nerve, and the clitoris is also innervated by the pudendal nerves. Lotze et al. (2001) demonstrated that pneumatic stimulation of the anal canal revealed activation in somatosensory cortex, insula, inferior parietal lobe, cingulate gyrus, amygdala and periaqueductal gray matter, similar to vaginal stimulation (6). All these areas are included in medial and lateral pain systems. Especially, anterior cingulate gyrus and insula have been shown to be involved in gating and perception of pain (5,7). Besides, primary and secondary somatosensory cortex, anterior cingulate gyrus and insular cortex are the primary regions most consistently activated by an acute nociceptive stimulus. The regions associated with pain modulation are the cingulo-frontal cortex and periaqueductal gray matter. Opioid analgesia decreases the neuronal activity in the regions linked to pain perception and increases the neuronal activity in the regions and pathways linked to pain modulation (5).

Neuro-peptides are heavily involved in the sexual response. Endorphins are endogenous opioid polypeptide compounds produced during pain and orgasm, and they work as natural pain relievers (8). On the other hand, orgasm pleasure is facilitated by stimulation of endorphins/opiate receptors (9). High densities of opioid receptors are located in all areas of the central nervous system known to be involved in integrating information about pain such as cingulate cortex, periaqueductal gray matter and reticular formation (8) and, these major structures of the medial pain system have a very high concentration of opioid receptors (5). Moreover, the periaqueductal gray area of the midbrain has been demonstrated to act as a relay center for sexually relevant stimuli (9).

Because of an overall scarcity of studies on female orgasm, one can generate only tentative hypotheses about analgesic effect of orgasm. The first phase of migraine attack has been related to the initiating trigger, involving the brainstem as migraine generator (10). Orgasm can act on migraine headache by endogenous opioid secretion and opioid receptor agonism occurring in initial migraine generator phase. The ineffectiveness of orgasm in severe headache may be due to progression of consecutive migraine phases.

Evans and Couch (2001) stated that orgasm was less effective than triptans and dihydroergotamine, but its effect started faster than other drugs (2). Thus, in some cases, orgasm may be a first-line treatment for migraine during the early phase of the attack, because of its natural and costless attributes. First of all, it is mandatory to carry out functional imaging studies that enlighten the association between orgasm and acute migraine attack and are combined with opioid system mapping. Certainly, designing such a study is extremely difficult and demanding. Nonetheless, the case presented here represents a novel behavioral pattern because of her discovery of a distinctive non-drug treatment, and also in future, alternative therapies will continue to be the popular research topic.

References