

Benign coital headache relieved by partner's pregnancies with implications for future treatment

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Abstract

This is a case of a male patient with a 27 year history of severe benign coital headache and associated symptoms. His condition was spontaneously relieved in the first trimester of his partner's pregnancy. This relief continued through the remainder of the pregnancy term, returning only after the birth of their child. The timing of the condition's relief and return of symptoms suggested progesterone was an intrinsic factor in this. Post-pregnancy the patient was able to prevent his attacks by taking oral norethisterone 5 mg. While writing this case the patient's partner became pregnant once more, resulting again in spontaneous relief of the patient's syndrome.

Background

Benign coital headache is a not uncommon condition causing great disability and concern both to the sufferers and their partners. There are around 150 cases recorded in the literature over the last 25 years. There is no specific treatment, particularly for the more severe forms as reported here. This case gives a potential insight into the pathogenesis of the condition and also is the first case presented where a drug, in this case norethisterone, has specifically and consistently prevented the syndrome occurring.

Case presentation

A 43-year-old man presented with a 27 year history of mental debility, fatigue and headache among other symptoms (table 1) associated with ejaculation and orgasm during any form of sexual activity. Involuntary nocturnal emission also produced it. The syndrome occurred 20 min after sexual activity and lasted for exactly 72 h. During this 72 h the pounding headache was constant and with other symptoms impacted on his ability to function. It would switch off after 72 h as quickly as it started. If the patient underwent sexual activity every 3 days, which was not usual, he would never be free of symptoms.

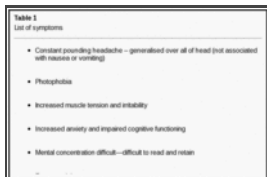


Table 1 List of symptoms
• Constant pounding headache - generalised over all of head (not associated with nausea or vomiting)
• Photophobia
• Increased muscle tension and irritability
• Increased anxiety and impaired cognitive functioning
• Mental concentration difficult - difficult to read and retain

Table 1
List of symptoms

The patient's past health was good. He had two psychiatric assessments in 1981 and 1996, and three neurological assessments in 1996 and 1997, with a tertiary referral being made to the national Hospital for Neurological Diseases. He has been fully investigated with 24 h electroencephalogram (EEG), magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA) scans of the brain and numerous blood tests. No abnormality or reason for his symptoms could be elucidated.

When he attended this medical centre he was keen to seek further help. Propranolol 10 mg twice daily was prescribed prophylactically at this time but the patient did not persevere with treatment.

He presented again 3 years later, in July 2008. He said he had both good news and bad news. Firstly, 8 weeks into his wife's and the patient's own first pregnancy, sexual activity no longer brought on his syndrome. After the baby was born, however, his condition fully returned.

At 8 weeks serum progesterone values rise greatly in a pregnant women and similarly fall after delivery. The patient had done his own research and wanted me to prescribe progesterone. His condition was now also a stress for his wife. I was reluctant to prescribe oral progesterone to a relatively young male. Instead I prescribed progesterone cream 8% which I suggested he apply around the nostril and upper lip area daily. This proved to be ineffective as did a subsequent prescription of a trial of the dopamine agonist, bromocriptine 2.5 mg daily.

In October 2008 I agreed to prescribe oral progesterone. The patient signed a letter of consent after a discussion of possible side effects. I prescribed norethisterone 5 mg (10 tablets). He was to take a tablet around 30 min before sexual activity.

When I saw him again 4 months later, the treatment had been very successful with complete prevention of his attacks. He had obtained a

further supply of norethisterone from a colleague at the medical centre in the interim as I was not available, and was “pleased beyond words” (sic.).

He said if he took a norethisterone tablet before the attack it alleviated his symptoms 95%, with only a background headache remaining for about 24 h.

He then usually took a further 5 mg norethisterone daily for the following 2 days to alleviate the residual symptoms and negate the possibility of his symptoms regenerating, although it is not clear in this regard if the extra medication was necessary.

On several occasions he took 10 mg norethisterone within a few minutes after sexual activity, but less than the latent period, and his syndrome did not manifest at all.

Over a 9–10 month period norethisterone was consistently effective. The patient was relieved of more than 30 episodes of his syndrome by the progestogen without exception.

Correspondence from Merck, the manufacturer of norethisterone, at this time confirmed there were no known harmful side effects in males.

During the compilation of this report the patient’s partner became pregnant again. Once more the patient found his condition spontaneously relieved 8–10 weeks into the pregnancy.

It was arranged to take blood from the patient to measure his serum progesterone during his wife’s pregnancy.

Investigations

Progesterone concentrations were measured from the patient during his wife’s second pregnancy. These were taken at approximately 6, 8, 11, and 15 weeks into his wife’s pregnancy. All the results were either at 1 nmol/l or at undeterminable values below this (measured at St Mary’s Hospital Pathology Laboratory, London). Other laboratory reference ranges obtained give a range of serum male progesterone values of similar age as 0.4–3.1 nmol/l (Laboratory test handbook, LEXI-COMP 2002) or 0.7–4.3 nmol/l (TDL, the Doctor’s Laboratory, London).

Outcome and follow-up

Long term efficacy of norethisterone in preventing benign coital headache over a 7–8 month period was established. The patient suffered no side effects of treatment. He felt well and more confident in most aspects of life generally, and there were psychological benefits to both patient and partner. The patient’s progress during his partner’s current pregnancy is being followed up.

Discussion

Severe headache is only one of the symptoms of this patient’s syndrome. However, this case would currently be included in the diagnosis of benign coital headache. This takes three forms. Two shorter forms occur before or at orgasm and last 30–60 min. The third type, which this patient had, occurs after a delay following orgasm and can last from around 6–12 h to as long as 3–4 days, as in this case. The delay before symptoms develop can also vary between 20–30 min to as long as 4 days.¹ These delays possibly suggest an initiation of a biochemical cascade which leads to the build up of symptom production.

Benign coital headache has an incidence of between 0.25–1%, but this could be higher.² The number of self reported cases on internet forums is also rapidly growing. One forum has over 250 members.³ They classify their condition without the emphasis on headache and give their syndrome an alternative name. Two cases are exemplified.⁴ It is distinctly possible that these syndromes are similar, if not the same or part of the same spectrum with similar pathogenesis. Progesterones such as norethisterone may therefore be helpful in these cases also.

No serious pathology underlies the syndrome of benign coital headache, but treatment has been limited.⁵ Different coital positions, analgesics and β -blockers have been reported to be of some help. Sexual abstention has been an unfortunate remedy for others.

Migraine is well documented to reduce in women patients during pregnancy.⁶ This is the first case reported where a woman’s pregnancy has prevented this severe form of benign coital headache syndrome developing in her partner. Close cohabitation and absorption of progesterone through touch and smell could be the beneficial mechanism. Progesterone could also be absorbed per urethra during coitus, but this would not explain the beneficial affects of the compound after non-coital sexual activity.

Serum progesterone concentrations measured in this patient were taken during the second pregnancy. The values were all low or comparatively low compared to the laboratory references quoted earlier. The patient was relieved from his condition at this time. This would suggest that the serum progesterone concentrations of the patient would be even lower during his partner's non-pregnant state. This could explain why augmentation of serum progesterone concentrations with norethisterone supplementation are effective at this time. A small incremental rise in progesterone may be all that is necessary for its beneficial effect. It would be useful to obtain serum progesterone concentrations in the patient when his partner is no longer pregnant to corroborate this.

Norethisterone was taken during the potential latent phase of his syndrome, suggesting it has a prophylactic effect on the condition. It is possible that norethisterone has a direct ameliorative effect on the condition, as the patient would take it over 3 days, which is the length of time his benign coital headache syndrome would normally last.

Progesterones such as norethisterone have wide pharmacological activity with effects on many tissue types. Norethisterone is a neurosteroid with multiple effects on the central nervous system; it is also a precursor for other powerful neurosteroids such as allopregnanolone. A defect of precursor synthesis could allow for the latency and resultant syndrome as highlighted here.

Certainly further studies of how norethisterone and possibly other progesterones signal relief in benign coital headache may at last throw light on the enigma and the pathos of this condition.

Learning points

- Most significant pathology presents in a primary care setting. Subtle syndromes with a complex of common symptoms, as in this case, need dedicated consultation time in order they are not overlooked.
- Simple research investigations (for example, determination of serum progesterone concentrations) carried out in primary care can provide valuable information.

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Footnotes

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Findings that shed new light on the possible pathogenesis of a disease or an adverse effect

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