Status Cataplecticus Leading to the Obstetric Complication of Prolonged Labor

Lam Siu Ping, M.R.C.Psych.; Fong Samson Yuk Yat, M.R.C.Psych.; Wing Yun Kwok, M.R.C.Psych.

Department of Psychiatry, Shatin Hospital, The Chinese University of Hong Kong, Shatin, Hong Kong SAR

Abstract: A 32-year-old married Chinese woman with cataplectic narcolepsy developed status cataplecticus during childbirth. It resulted in prolonged labor and required an emergency cesarean section. The patient had a history of severe and prolonged cataplectic attacks during sexual excitement but relatively mild attacks in other situations. We postulated that her susceptibility to genital stimulation might predispose her to cataplectic attacks during childbirth. Awareness of this potential obstetric complication, especially in those with a history of prominent sex-related cataplexy, together with careful planning and monitoring during the labor process may help to minimize the obstetric risk of patients with narcolepsy.

Keywords: Status cataplecticus, obstetric complication

Conclusion: Lam SP; Fong SYY; Wing YK. Status cataplecticus leading to the obstetric complication of prolonged labor. J Clin Sleep Med 2007;3(1):56-57.

Narcolepsy is a debilitating illness characterized by cataplexy, excessive daytime sleepiness, sleep paralysis, and sleep-related hallucinations. Our previously published population study reports a prevalence rate of narcolepsy of 0.034% in Hong Kong Chinese, which is comparable with that of other population studies using stringent epidemiologic designs. Narcoleptic patients from different ethnic groups have been reported to have significant impairments over various aspects of their lives, including education, employment, relationships, and accident rates. We report here a patient with narcolepsy who had prominent cataplectic attacks related to sexual excitement and prolonged labor caused by status cataplecticus. To our knowledge, this obstetric complication has never been previously reported.

REPORT OF CASE

The patient is a 32-year-old woman who has exhibited excessive daytime sleepiness since she was a teenager. She also has sleep paralysis; sleep-related hallucinations in the form of auditory, visual, and tactile hallucinations; and mild muscle weakness, including sagging of jaw and knee buckling during laughter. Her first polysomnogram in 1996 revealed a mean sleep latency of 7.7 minutes and 1 sleep-onset rapid eye movement period on the Multiple Sleep Latency Test. HLA typing result indicated HLA-DQB1*0602 status. With the patient having the cardinal clinical features of narcolepsy and polysomnography results, a diagnosis of narcolepsy was made, and the patient was treated initially with methylphenidate and subsequently with modafinil, to which she showed good response. The patient’s other accessory symptoms were relatively mild until she married at the age of 27. She reported having prominent and prolonged postcoital cataplectic attacks that could last up to 40 minutes. During the attacks, she had complete atonia of her limbs, and she could not talk. She maintained consciousness and could recall the event afterward. The duration of the attack was proportional to the sexual excitement. Despite the severity of the cataplectic episodes, she was reluctant to take any anticaataplectic medications.

In anticipation of her first pregnancy, the patient gradually weaned off the modafinil before conception. During the pregnancy, she had infrequent cataplectic attacks but increased excessive daytime sleepiness. Nonetheless, she insisted on being free from any medication. At the 39th week of gestation, she was admitted to an obstetric unit in a local hospital for delivery. She used Entonox (a self-administered mixture of 50% N\textsubscript{2}O and 50% O\textsubscript{2}) for analgesic effect. No other parenteral anesthetic agent was given. As the pain progressively increased, the patient experienced sudden loss of muscle tone of her limbs for a few minutes following each intense bout of uterine contractions, which came nearly every 5 to 7 minutes. She could hear people talking, but she could not give any verbal response during the attacks. Her level of consciousness was maintained, and she had no incontinence. Between the attacks, she could communicate with the staff and move voluntarily. The phenomenon lasted for 3 hours. There was no sign of fetal distress. The obstetrician finally suggested emergency cesarean section because the cataplectic attacks persisted and the patient had difficulty proceeding with a vaginal delivery. The whole labor process lasted for more than 21 hours. The patient suffered from depression and troublesome excessive daytime sleepiness during the postpartum period. She resumed taking modafinil and antidepressant and had a favorable recovery.

Disclosure Statement
This is not an industry supported study. Dr. Wing has conducted research studies sponsored by Eli Lilly Pharmaceuticals and Servier Pharmaceuticals. Drs. Lam and Fong have indicated no financial conflicts of interest.

Submitted for publication April 19, 2006
Accepted for publication May 12, 2006
Address correspondence to: Dr. YK Wing, Professor, Director of Sleep Assessment Unit, Department of Psychiatry, Shatin Hospital, The Chinese University of Hong Kong, Shatin, Hong Kong SAR; Tel: 852 26367748/755; Fax: 852 26475321; E-mail: ykwing@cuhk.edu.hk

Journal of Clinical Sleep Medicine, Vol. 3, No. 1, 2007
DISCUSSION

Cataplexy can be precipitated by a variety of situations, including sexual intercourse, and, as has been discussed, the symptomatology is similar across different ethnic groups. During delivery, patients may experience strong emotions, including tension, stress, anxiety, elation, pain, and physical exhaustion. All of these factors can precipitate cataplectic attacks. However, cataplexy has rarely been reported during labor among patients with narcolepsy. In our case, the patient had prominent postcoital cataplexy but relatively mild cataplectic attacks in other scenarios. We postulated that her susceptibility to genital stimulation, in addition to other emotional factors, might precipitate her status cataplepticus during delivery.

Pain accounts for a major emotional component during labor. The proper use of anesthetic and analgesic agents may alleviate the stress and tension during delivery. There have been worries about potential anesthetic risks in patients with narcolepsy, including apnea, postoperative hypersomnia, and prolonged emergence after general anesthesia. However, a previously published retrospective analysis revealed no evidence of an increased risk of perioperative complications after general anesthesia in patients with narcolepsy. Nonetheless, further effort may be needed to explore the balance between the risk of obstetrical anesthesia and complications related to cataplexy in patients with narcolepsy.

The socioeconomic impact of narcolepsy has been well documented. Complications during delivery is another area of impact that may be overlooked but could be minimized with proper management. Awareness of this potential complication, especially in those patients with a history of prominent sex-related cataplexy, is important. Liaison with obstetricians and careful monitoring and judicious use of anesthetic and analgesic agents during the labor process may help to minimize the risk of delivery in patients with narcolepsy.

REFERENCES