



CASE REPORT

Sleep related eating disorder: Importance of prebariatric evaluation—A case report



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Summary Sleep-related eating disorder (SRED) is a parasomnia characterised by recurrent episodes of eating after arousal from sleep, occurring in an unconscious and involuntary manner. It has been reported mainly in association with the use of psychotropic medications. This case report is of a patient diagnosed with a sleep-related eating disorder associated with amnesia in the postoperative period following bariatric surgery. Such eating episodes without awareness in postoperative period might have devastating results by disturbing compliance with suggested eating behaviours. Although it is a rare condition, SRED should be screened for among bariatric surgery candidates, and those affected should be directed for the appropriate treatment. Also whether SRED should be considered a contraindications to bariatric should be considered.

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Introduction

An increase in the prevalence of obesity and the failure of conventional treatments to provide weight loss in the long-term has resulted in the increase in the utilization of bariatric surgery over the past decade. A favourable outcome of bariatric surgery is to a large extent dependent on

patients' ability to adhere to required postoperative behaviour changes [1].

Mental health evaluation is seen as a vital component of the pre-surgery assessment. Studies suggest that approximately 70% of bariatric surgery candidates suffer from a lifetime diagnosis of a major psychiatric disorder [2]. Furthermore, rates of problematic eating behaviours are also common, with approximately 16–23% of patients meeting criteria for current binge eating disorder [3] and 2–10% suffering from current night eating syndrome [4]. Alcohol and

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substance use disorders, dementia, active psychosis, profound developmental disabilities are regarded as contraindications to bariatric surgery since such disorders can lead to disturbed postoperative adherence and poor overall outcomes [5].

Schenck et al. first described SRED in 1991 [6]. It is defined as a heterogeneous syndrome that is a parasomnia characterised by recurrent episodes of eating after arousal from sleep, occurring in an unconscious and involuntary manner. Similar to sleepwalking, patients cannot be easily awakened or redirected [7]. According to International Classification of Sleep Disorders-Third Edition (ICSD-3), the diagnosis of SRED requires recurrent episodes of dysfunctional eating that occur after an arousal during the main sleep period, along with at least one of these criteria: consumption of peculiar forms or combinations of food or inedible or toxic substances; sleep-related injurious or potentially injurious behaviour performed while in pursuit of food or while cooking food; adverse health consequences from recurrent nocturnal eating; partial or complete loss of conscious awareness during the eating episode, with subsequent impaired recall [8]. SRED is classified under the title of Non-Rapid eye movement (NREM) sleep arousal disorders in the Diagnostic and Statistical Manual of Mental Disorders, DSM 5 as well [7].

This case report describes an individual with SRED, which complicated the postoperative period following bariatric surgery. However, sleep-related eating disorder (SRED) has not been consistently recognised as a primary or relative contraindication for bariatric surgery in the literature. We aimed to provide increased awareness focusing on the need to evaluate bariatric surgery candidates for SRED. Moreover, we aimed to stimulate consideration as to whether SRED should be a contraindication to bariatric surgery.

Case report

A 38-year-old, married woman stated that on the sixth postoperative day following Sleeve Gastrectomy, she awakened with the taste of food in her mouth in the morning, and she found food crumbs on her pillow. She could not remember that she had awakened and ate. She was concerned since she had violated her liquid diet, and sought help to avoid any medical complications.

She had a previous history of similar episodes of eating that occurred during the sleep, in an unconscious, out of control manner, at least one

night every week since she was 20-years-old. She could not recall the events, but had total amnesia, although her husband and children noticed food consumption. She had not previously sought medical help. Also, she had undergone a preoperative psychiatric evaluation, but reported that her sleep-related eating symptoms had not been evaluated in that examination.

She described progressive weight gain after the age of 12. She had lost weight of 20–44 kg on four different occasions using various dieting methods, but in a short period, she always had regained the weight. She has undergone bariatric surgery on April 2016 when she was 130 kg (Body Mass Index, BMI 48.9 kg/m², length: 163 cm).

Her examination underwent by a psychiatrist who was an expert in eating disorders and obesity. This revealed her past and current SRED. She had also diagnosed as past binge eating disorder and night eating syndrome for her preoperative period. She had consumed large quantities of food at bedtime and/or in the middle of the night since she was 18. During the postoperative period, she had not have any binge eating or night eating episodes.

Her mood was euthymic, and she had no current suicidal ideation. She felt encouraged because she had started to lose weight. She had been fairly complained with the suggested diet which consisted of liquid consumption for the first two weeks postoperatively, as well as lifestyle changes. Although she had not been diagnosed with major depressive disorder previously, she said she had been depressed before surgery. Her psychiatric history revealed an attempt at suicide with the consumption of 16 pills four months before bariatric surgery. She explained she wished to die because she could not get promoted at work because of her obesity. She decided to get surgical treatment for her obesity. Her expectation was to improve her body image. She denied consuming alcohol or substances of abuse.

She had no history of diabetes mellitus, heart disease, hypertension, or smoking. As the physical activity, she reported walking at a moderate pace for one hour each day both before and after the bariatric surgery. She reported symptoms of sleep apnea one year previously but after losing 41 kg by dieting her symptoms disappeared. Her current BMI measured to be 39.5 kg/m².

Her two brothers had undergone bariatric surgery with BMI's of 64.7 kg/m² (205 kg) and 67 kg/m² (217 kg). She reported that both siblings were having episodes of nocturnal eating with full awareness at least three nights each week.

Discussion

In this case report, we present a female patient experiencing sleep-related eating associated with amnesia in the postoperative period of diagnosed as SRED. In SRED, eating behaviour commonly occurs during non-REM sleep. This case demonstrates the importance of distorted compliance after surgery because of SRED.

SRED might induce surgical complications, especially in the early postoperative period, when, patients are instructed to eat only a liquid regimen for the first 15 days and pureed food for the following 15 days. Only after the first month do they reintroduce solid food. The most important reason for this restricted feeding during the early postop period is the risk of nausea, vomiting, reflux, haemorrhage and anastomotic leakage as a result of increased intraluminal pressure. Increased intraluminal pressure may be life threatening and lead to serious complications such as wound dehiscence and anastomotic leakage that require re-operation [9]. Although surgical complication such as anastomotic leakage did not develop in our case, SRED should be considered in every candidate for bariatric surgery.

Food choices during sleep are different from choices during the day among SRED patients. Usually the foods are high-calorie food, and rich in fat and sugar content. Patients are encouraged are recommended to eat a protein rich diet, and the carbohydrate-rich foods consumed by the SRED patient during sleep may have adverse consequences on weight loss.

Some SRED patients eat harmful and/or strange materials or chemicals. Some patients find the remains of the food they ate at night within the bed or kitchen, but most of the patients with SRED do not remember the eating behaviour the following day.

The exact prevalence of SRED in the general population is not known, but is more common than is usually recognised, especially among those with a daytime eating disorder. The prevalence is reported to be 0.5% among patients seen in the sleep laboratory, as well as 17% among patients with an eating disorder, 3.4% among depressed patients and 1% of obese individuals in a weight-loss program [10]. 66–83% of the patients with SRED are female, and more than 40% of the patients are overweight [11].

In a case series, 47% of SRED patients had concurrent psychiatric disorders [6]. A follow-up study noted that 53% of patients described a history of repeated abuse and symptoms of post-traumatic

stress disorder [12]. Another study suggested that patients with SRED had more symptoms of depression and dissociation than those without SRED [13]. In our case, the patient had a history of depressive symptoms, and an attempt suicide. She did not report any dissociative symptom or other symptoms of posttraumatic stress disorder.

SRED is observed more frequently in overweight subjects and in patients with eating disorders than among a healthy population. The present case had a history of night eating syndrome as well evening hyperphagia and with a full awareness of eating. During the psychiatric assessment, the clinician must keep in mind that SRED and eating disorders may coexist at different stages of life. Her psychiatric history also revealed binge eating disorder before bariatric surgery.

Researchers mostly commonly report cases of SRED induced by the use of psychotropic medications such as tricyclic antidepressants, lithium, anticholinergic agents, olanzapine, risperidone, quetiapine, and sodiumoxybate [14–16]. More recently, SRED has been reported with use of the benzodiazepine receptor agonist zolpidem [17]. In the present case, there was not a history of medication use in association with produce SRED symptoms.

Studies using polysomnography have found that patients with SRED are more likely to have other concurrent sleep disorders, such as sleepwalking, restless leg syndrome, obstructive sleep apnoea syndrome (OSAS), and narcolepsy [18]. The present case also had a history of OSAS symptoms, which disappeared after losing 41 kg.

Although treatment research for SRED remains limited, several options are available. Pharmacotherapy with topiramate [19] and pramipexole [20] have received the most empirical support. Controlled trials are needed to confirm the results from pilot studies. Notably, hypnotherapy, psychotherapy, and various behavioural techniques, including environmental manipulation, have not been demonstrated to be effective.

The present case suggests that SRED may constitute a contraindication to bariatric surgery, as SRED leads to unwillingly and uncontrolled eating. The low prevalence of SRED has contributed to the lack of adequate discussion of this problem in the bariatric literature.

Conclusion

As illustrated by this case, SRED is characterised by arousals from sleep followed by rapid ingestion of

food, commonly with at least partial amnesia for the episode. Such eating episodes without awareness in postoperative period might have devastating results via disturbing compliance of SRED patients. Therefore, although it is a rare condition, SRED should be screened among bariatric surgery candidates and should be directed to the appropriate treatment.

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