

**CASE REPORT**

## **Night Eating Syndrome with Morbid Obesity and Dysthymia: A Case Report - A Psychobiological Approach**

Ainsah O and Osman CB

Department of Psychiatry, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur

### **ABSTRAK**

Tradisi memusatkan faktor kosmetik dan fisikal sebagai model tanpa memberi perhatian pada isu psikososial adalah rintangan untuk mencapai kejayaan dalam penjagaan rawatan obesiti. Objektif artikel ini adalah untuk melaporkan satu kes mengenai seorang pesara askar berpangkat sarjen yang menunjukkan sindrom makan malam(SMM) dan obesiti morbid serta distimia, dan juga untuk membincangkan aspek psikobiologi kes disamping untuk menilai keberkesanan kombinasi rawatan farmakoterapi, dan terapi kognitif tingkahlaku serta kaunseling pemakanan. Diagnosis klinikal di buat menggunakan Temuduga Klinikal Berjadual (TKB) untuk diagnosis DSM-III-R dan tahap kemurungan dinilai dengan Skala Penarafan Kemurungan Hamilton. Indeks massa badan pesakit adalah 45. Beliau didapati mengalami Distimia dan Skor Skala Penarafan Kemurungan Hamilton adalah 13. Kami mendapati kombinasi farmakoterapi, terapi kognitif tingkahlaku dan pendidikan pemakanan serta bantuan pakar perubatan telah terbukti berkesan dalam rawatan Sindron Makan Malam (SMM), Obesiti Morbid dan Distimia.

*Kata kunci:* sindrom makan malam (SMM), obesiti morbid, distimia.

### **ABSTRACT**

The traditional physical and cosmetic-centered model without paying serious attention on the underlying psychosocial issues of care are ill suited to successful treatment outcome of obesity. The objective of this article is to report a case of a retired Malay army sergeant who presented with night eating syndrome (NES) with morbid obesity and dysthymia, and to discuss the psychobiological aspect of the case including to evaluate the effectiveness of the combination treatment of pharmacotherapy and cognitive behavior therapy alongwith diet counseling. The diagnosis was made by using the Structured Clinical Interview Diagnosis (SCID) for DSM-III-R diagnosis and the severity of depression was assessed by Hamilton Depressive Rating Scale. The patient's body mass index was 45, He was found to have dysthymia and the Hamilton Depressive Rating Scale score was 13. We found that the combination of pharmacotherapy, cognitive behavior therapy and nutritional education with the help of the physician proved to be effective in treating morbid obesity with NES and Dysthymia.

*Key Words:* quality of life, coping styles, schizophrenia

---

**Address for correspondence and reprint requests:** Associate Professor Dr Ainsah Omar, Department of Psychiatry, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia. Email: [ainsah@mail.hukm.ukm.my](mailto:ainsah@mail.hukm.ukm.my) / [oyjaao@yahoo.com.my](mailto:oyjaao@yahoo.com.my)

## INTRODUCTION

Night eating syndrome (NES) is a syndrome characterized by morning anorexia, evening hyperphagia and insomnia. The nocturnal food ingestion is 50% > of daily calories intake and it occurs three times a week for a period of 3 months. NES is commonly associated with obesity and often has an underlying psychosocial problem (Allison et al, 2005). Though it is a fairly common syndrome it is often being overlooked. More often than not the emphasis is more towards medical and cosmetic reasons without paying serious attention on the underlying psychosocial issues which often lead to an unsuccessful outcome.

## CASE REPORT

Mr AW, A 65 year old Malay widower, a retired army sergeant, was referred to the psychiatric clinic for psychiatric assessment. He had multiple medical illnesses and was chronically feeling depressed and had problems with excessive weight gain since the age of 41 (for 24 years). During the same period he retired from the army and said that his wife left him to elope with her ex-boyfriend. The symptoms worsened when his son who was staying with him decided to move out in 2002. He became more depressed and had insomnia, remaining awake at night and could only sleep by 0500 hours. When he could not sleep he would cook despite not feeling hungry. He ate a lot of high calory and junk food such as fried rice and chicken, nuggets, cream, biscuits, cake or ice-cream. He also had large amounts of food stocked up in the refrigerator which he kept in his bedroom. He had peculiar eating patterns when he would skip breakfast and take a late lunch. His urge to eat increased during the night. However, he had no compensatory behaviour such as self-induced vomiting, consume laxatives, pills or diuretics. He was diagnosed with diabetes, hypertension, ischemic heart disease and conges-

tive cardiac failure for 10 years. With these illnesses he was admitted several times. Currently, his physical state and illnesses are stable and are under control. In the past he was admitted to the psychiatric ward for depression but was discharged well without medication. There was no history of manic swings. His father was a traditional healer and an alcohol dependent; he was rather passive and was ineffective as a father. His mother was severely obese and was described as very strict, harsh and domineering. All his siblings were obese. At school, the patient was an average student and joined the army at the age of 21. He was promoted to sergeant four years later until he retired at the age of 41. Subsequently he worked as a security guard for 20 years until the age of 60. He is now survived on his pension. His personality traits are a mixture of obsessional and borderline traits, characterized by punctuality, determination, impulsiveness, low self-esteem and chronic boredom. His weight was 120kg, height 167.5 cm with waist circumference of 159.5 cm. His body mass index (BMI) was 45.

The management consists of a multi-disciplinary teams comprising of a dietician, psychiatrist, psychologist, physician and surgeon. The patient was put on Escitalopram 10mg to treat his depression and at the same time underwent cognitive behavior therapy. The principal of management in this patient is that while the physician takes care of his physical illnesses, the therapist guides the patient to exercise self-monitoring and to keep a food diary. This is a crucial component of the therapy to enhance awareness of his eating habits and pattern. Since his BMI was 45, and with the presence of co-morbid conditions, he was also referred to a surgeon who recommended him to undergo bariatric surgery. However, surgery was later cancelled because the patient could not afford it. The only option left was the non-surgical interventions. The dietician educated him on proper nutrition to help him identify his main source of calories as this would help

him to lose and maintain his weight. The therapist also stressed on healthy lifestyle and regular exercises. With the help of therapists Mr AW identified many types of triggers that precipitated his eating episodes which include long gaps between meals and negative emotions such as boredom, frustration and familial stressors. He was then educated on stimulus control techniques, trained in problem solving skill, cognitive restructuring and relapse prevention. He soon responded to treatment and his eating patterns improved and he could sleep well at night. The NES behaviour has stopped and his weight has reduced from 123 to 91kg over a period of 18 months.

## DISCUSSION

The comprehensive management of this case need a multidisciplinary team approach comprising of the assessment and the management of issues related to medical, nutritional, psychological and psychiatry problems (Labib 1994). Research has demonstrated that depression, interpersonal problems, boredom, prolonged fasting could all lead to the development of night eating syndrome (Allison et al, 2005). All these are present in this patient. Although eating disorders usually develop in adolescence or young adulthood, they could also affect people above 40 and in children. This patient came late for treatment which is 20 years later. This is not uncommon because usually people with an eating disorder do not reveal their problems or even conceal them due to denial or lack of awareness. They may also feel ashamed or are ignorant of the treatment available (Annie 1999).

Although patients with an eating disorder may be unwilling to enter treatment the clinicians could persuade them by showing lots of empathy, understanding and take a non judgmental approach. Of course, the patient's motivation is the key component for success in any kind of treatment. Generally, the psychiatric assessment of patients with eating disorders would center

around establishing a correct diagnosis, identifying co-morbidity and evaluating the underlying psychosocial issues and conflicts (Labib 1994). Obviously the psychosocial issues in this patient are loneliness, boredom and frustration. He also has low self esteem and depression. Many obese individuals would perceive food as an attempt to decrease emotional upheavals.

Biologically, a neurobiological investigation showed that there was an association between psychopathology, weight regulation and eating behavior (Hasler et al 2004). While dopamine modulates the rewarding effects of food and the development of obesity (Rye and Jankovic 2002), it also has an important role in the pathophysiology of sleep-wake disturbances (O'Reardon et al. 2004). The Serotonin has been implicated in the control of impulses of eating behavior and depression (Ricca et al. 2002). In our case, escitalopram was chosen because it is the best selective serotonin re-uptake inhibitor for those with depression and poor impulse control associated with multiple medical illnesses for it has less drug interaction property (Sproule et al. 1997). The other important substance is the appetite-regulating hormone. A study reported that ghrelin levels were lower in NES than in control subjects in the early morning hours when patients remained awake (Wang et al. 2001). There was evidence to show that psychopathology and weight problems might share common genetic factors. Findings of a twin study demonstrated an association between depression and obesity in which familial / genetic factors influence the vulnerability to depression as well as obesity (Hasler et al. 2004). Cultural factors also contributed to obesity. It was noted that people originating from Eastern Europe and living in the United States had a higher incidence of obesity than people from Western Europe (Bray 1976). Generally the contributing factors to the development of obesity are biological factors, abundance of food, decrease physical activity, basic food habits which include food of high calories

and emotional disturbances. Regardless of the cause or factors that contribute to obesity, it can create difficulties that will affect emotional well-being, sexuality, physical and occupational identities as well as the social role. Therefore this problem needs an urgent and comprehensive intervention comprising of the bio-psycho-social approaches.

## CONCLUSION

An integrated approach is required to understand the aetiology and treatment of obesity. The successful management of morbid obesity requires a coordination of care from multiple disciplinary groups namely physician, psychologist, nutritionist, surgeon and psychiatrist, with varied expertise working together as a team to assist patient care.

## ACKNOWLEDGEMENTS

The authors would like to thank the patient and all staffs who have helped in the management of this case.

## REFERENCES

- Allison, K.C., Ahima, R.S., O'Reardon, J.P., Ringel, B.L., Dinges, D.F., Stunkard, A.J. 2005. Neuroendocrine Profile Associated with Energy Intake, Sleep, and Stress in the Night Eating Syndrome. *J Clin Endocrinol Metab.* **90**(11): 6214-6217.
- Annie, E.B., Steven, K.G., Anne, K., David, B.H. 1999. Eating Disorder: *N Engl J Med.* **340**: 1092-1098.
- Bray, G. 1976. The overweight patient. *Advances in Internal Medicine.* **21**:267-308.
- Hasler, G., Pine, D.S., Gamma, A., Milos, G., Rossler, W., Angst, J. 2004. The associations between psychopathology and being overweight: a 20 year prospective study. *Psychol Med;* **34**(6): 1047-1057.
- Labib, M. 2003. The investigation and management of obesity. *J Clin Pathology.* **56**(1):17-25.
- O'Reardon, J.P., Ringel, B.L., Dinges, D.F., Allison, K.C., Roger, N.S., Martino, N.S., Stunkard, A.J. 2004. Circadian eating and sleeping patterns in the night eating syndrome. *Obes Res.* **12**: 1789-1796
- Ricca, V., Nacmias, B., Cellini, E., Di Bernardo, M., Rotella, C.M., Sorbi, S. 2002. 5-HT<sub>2A</sub> Receptor gene polymorphism and eating disorders. *Neurosci Letters.* **323**: 105-108.
- Rye, D.B., Jankovic, J. 2002. Emerging views of dopamine in modulating sleep / wake state from an unlikely source PD. *Neurology.* **58**: 341-346.
- Sproule, B.A., Naranjo, C.A., Brenner, K.E. & Hassan, P.C. 1997. Selective serotonin reuptake inhibitors and CNS drug interactions. A critical review of the evidence. *Clin Pharmacokinet.* **33**: 454-71.
- Wang, G.J., Volkow, N.D., Logan, J., Pappas, N.R., Wong, C.T., Zhu, W., Netusil, N., Fowler, J.S. 2001. Brain dopamine and obesity. *Lancet.* **357**: 354-357.