5. Tanii H: Studies of risk factors and preventive care for neuroleptic malignant syndrome. Nihon Shinkei Seishin Yakurigaku Zasshi 2006; 26:177–181

PHILLIP B. MARSHALL, M.D.
THOMAS A. MELLMAN, M.D.
SHANA XUANLAN C. NGUYEN, M.D.
Washington, D.C.

The authors report no competing interests.

This letter (doi: 10.1176/appi.ajp.2008.07121972) was accepted for publication in May 2008.

Anorexia Nervosa and Mercury Toxicity

TO THE EDITOR: Neuropsychiatric symptoms as a result of mercury poisoning following the excessive consumption of large predatory fish (methyl mercury levels >1 ppm) are well documented but often misdiagnosed.

Mercury toxicity secondary to the excessive consumption of tuna was observed in a 47-year-old woman with a 30-year history of anorexia nervosa. The patient's prolonged abuse of laxatives resulted in a small bowel obstruction and rectal prolapse 7 years prior to the detection of mercury intoxication. The rectal prolapse was treated with total proctocolectomy and ileostomy. A low fiber diet was recommended thereafter, and the patient commenced a diet consisting of two cans of tuna and one muffin daily for the subsequent 7 years until she came to our unit for observation and treatment of anorexia nervosa.

The patient presented with a 1-month history of depressive symptoms, refusal to eat, fatigue, weakness, anxiety, insomnia, irritability, and "confusion." She weighed 73.7 lbs, which was approximately 53% of her ideal body weight, and was afraid that her bowels would stop working. She reported increased sensitivity to loud noise and ringing sounds in the absence of auditory stimuli. A neuropsychological assessment revealed less than normal scores for processing speed, working memory, and attention. Her premorbid IQ was estimated within the 61st percentile. Her current full-scale intelligence quotient score was within the 45th percentile, with a verbal intelligence quotient score within the 75th percentile and a performance IQ score within the 30th percentile. Her memory was stronger for verbal information (scoring in the 50th percentile) relative to nonverbal information (scoring in the 4th–10th percentile). Psychiatric examination revealed longstanding symptoms consistent with anorexia nervosa, but due to her most recent symptoms of irritability and weakness as well as her neuropsychological deficits, a mercury level evaluation was obtained.

The patient's plasma mercury levels were markedly elevated at 74 mcg/dl (normal=<10 mcg/dl) on two repeated measurements. A complete blood count, electrolytes, amylase, and lipase were all unremarkable, but liver enzymes showed slight elevation. The patient underwent chelation therapy, with succimer 10 mg/kg t.i.d. for 5 days and then 10 mg/kg b.i.d. for the following 14 days. The mercury toxicity motivated her to change her diet and broaden her food repertoire. Although her attitudes toward food with high residue did not change, the patient became afraid of eating any type of fish.

More than 200 neuropsychiatric symptoms have been attributed to mercury poisoning in the medical literature (1–3). Our patient's symptoms, including low mood, irritability, insomnia, cognitive impairment, and fatigue, may have been primarily mood symptoms, a consequence of severe malnutrition, or are attributable to mercury poisoning. Interestingly, mercury poisoning as a result of dental amalgam fillings may cause an anorexic syndrome (anorexia hydrargyrum) (4). To our knowledge, this is the first report of mercury intoxication secondary to anorexia nervosa. We are currently following our patient to monitor her psychiatric and neurological response to chelation. Longitudinal observation and treatment of malnutrition and depressive and anxiety symptoms may clarify the extent to which our patient's symptoms were attributable to mercury intoxication.

References

1. Schutte NP, Knight AL, Jahn O: Mercury and its compounds, in Occupational Medicine, 3rd ed. Edited by Zenz C, Dickerson OB, Horovath EP. St Louis, Mosby-Year Book, 1994, p 549
2. Berlin M: Mercury, in Handbook on the Toxicology of Metals, vol II. Edited by Friberg L, Nordberg GF, Vouk VB. Amsterdam, Elsevier, 1986, p 387
3. World Health Organization: Inorganic Mercury: Environmental Health Criteria, 118. Geneva, Switzerland, WHO, 1991
4. Dörffer U: Anorexia Hydrargyra: Kasuistik aus der Praxis [Anorexia hydrargyra. A case report from general practice] published in German in Monatsschr Kinderheilkd. 1989; 137:472

DHALIWAL RAVNEET, M.D.
SERGIO PARADISO, M.D., PH.D.
Iowa City, Iowa

The authors report no competing interests.

This letter (doi: 10.1176/appi.ajp.2008.08020233) was accepted for publication in March 2008.

Intranasal Zaleplon Abuse

TO THE EDITOR: Nonbenzodiazepine hypnotic agents were developed to minimize the adverse effects of benzodiazepines. These hypnotics bind to the α_1, α_2, and α_3 subunits of the gamma-aminobutyric acid type A ($GABA_A$) receptor complex. Zaleplon preferentially binds to the α_1 subunit. These compounds offer less abuse liability relative to benzodiazepines, although this is debatable under certain circumstances (1). We present the case of a patient who abused intranasal zaleplon in order to experience a "high" feeling.

"Mr. A" was a 28-year-old man with a 13-year history of polysubstance abuse (cannabis, cocaine, and heroin). He had been abusing mainly cocaine over the past 5 years and had unsuccessfully tried several treatments to achieve abstinence 1 year prior, following a prolonged stay in a monastery. As a result of sleep difficulties, he was prescribed zaleplon (10 mg/night) as needed. Over the next 3 months, the dose was gradually increased to 70–80 mg/day. Subsequently, he noticed that zaleplon had a mood uplifting effect. To boost this effect, he started taking the drug intranasally by snorting seven to eight pulverized capsules. The patient mentioned that intranasal zaleplon produced a euphoric feeling resembling that of cocaine, although less intense and of a shorter duration. This pattern of abuse persisted for almost 1 year, and withdrawal symptoms (anxiety, ner-