EATING DISORDERS REVIEW®

Published by Gürze Books, specializing in eating disorders publications and education since 1980.

Includes Volume 12 • Index

ISSN 1048-6984

November/December 2001 • Volume 12, Number 6

Does Olanzapine Affect the Rate of Weight Gain Among Inpatients with Eating Disorders?

Jill A. Gaskill, MSN, CRNP • Teresa A. Treat, PhD • Elizabeth B. McCabe, MSW • Marsha D. Marcus, PhD • Western Psychiatric Institute and Clinic • Pittsburgh, PA

The atypical antipsychotic agent olanzapine (Zyprexa®) is associated with significant weight gain in treated patients with psychotic disorders (*J Clin Psychiatry* 1999; 60 Suppl 20:21). On average, patients receiving olanzapine gain more than 2 kg/month (*Drug Safety* 2001; 24:59).

Since weight gain is a critical target in the treatment of anorexia nervosa, eating disorders researchers have been very interested in the potential use of olanzapine to treat low-weight patients. La Via and colleagues reported that use of olanzapine led to weight gain and reduction of symptoms of anxiety in two patients with treatment-refractory anorexia nervosa (*Int J Eat Disord* 2000; 7:363).

The rate of regain was not related to the dosage of olanzapine or diagnostic subtype.

A Larger Study

We designed a study to examine the effect of olanzapine on weight gain in a larger case series of patients with anorexia nervosa. The participants were consecutively admitted patients with anorexia nervosa who were treated in our inpatient unit for at least 14 days. We compared the outcome of 23 patients who were treated with olanzapine with 23 patients who did not receive olanzapine treatment, in an open, non-randomized trial.

The typical dosage range for the use of olanzapine in the treatment of psychotic disorders is 15 to 20 mg/day. For patients with anorexia nervosa, we started at doses of 1.25 mg unless the individual was taking a higher dose of olanzapine on admission. The dosage was then increased by 1.25 mg every 2 to 4 days, as tolerated, to a target dosage of 5 mg/day. The mean dosage was 5.5 mg, with a range of between 1.25 to 15 mg/day at discharge.

Some Subtle Differences Emerged

There were no differences in weight gain between patients who were and were not treated with olanzapine. The average weight gain for olanzapine-treated patients was 1.24 kg/week versus 1.18 kg/week for patients who did not receive olanzapine. Moreover, the rate of

continued on page 2

Update

Addressing Body Image Concerns Online

A small pilot study has shown that interactive intervention using the Internet can reduce body image concerns among college-aged women in a convenient and cost-effective way. Denise Wilfley, PhD, and colleagues at Stanford University designed an 8-week program during which 18 college-aged women with high body image concerns were randomly assigned to an online intervention group or a wait-list control group. Those in the intervention group logged onto a private unlisted online club once a week to discuss issues related to their concerns about body image and problematic eating behaviors. A moderator structured and facilitated the group sessions, which consisted of support, homework assignments, and group treatment summaries. At follow-up, the areas that were most improved on the assessments included restraint and concerns about weight and shape. There was also a small- to-medium effect on the Drive for Thinness scales and a slight effect on the weight concern. The researchers described their study at the Academy for Eating Disorders meeting in Vancouver in May.

ALSO IN THIS ISSUE

continued from page 1

regain was not related to the dosage of olanzapine or diagnostic subtype (purging versus restricting anorexia nervosa). However, in this uncontrolled study, there were systematic differences between patients who received olanzapine and those who did not.

Patients treated with olanzapine had more previous hospitalizations for treatment of eating disorders, longer lengths of stay for the current hospitalization, and higher scores on the Eating Disorders Examination Questionnaire. This suggested that the individuals selected for olanzapine treatment were more distressed and more likely to have chronic disease. Controlling for these group differences in statistical analyses did not change the results.

Thus, in contrast to previous case reports, olanzapine treatment was not associated with an increased weight gain in this inpatient setting. It may be that the effects of the drug were not seen in this controlled setting because we maximize and monitor calorie intake. Thus, additional randomized, controlled research is needed to determine if the use of olanzapine promotes weight gain in an outpatient setting where the ability of anorexia nervosa patients to comply with a nutrition plan varies considerably among patients.

Suggested Reading

1. Ganguli, R. Weight gain associated with antipsychotic drugs. *J Clin Psychiatry* 1999; 60 Suppl 21, 20-4.
2. Wetterling, T. Bodyweight gain with atypical antipsychotics. A comparative review. *Drug Safety* 2001; 24, 59-73.
3. La Via, M., Gray, N., Kaye, WH. Case reports of olanzapine treatment of anorexia nervosa. *Int J Eat Disord* 2000; 27; 363-6.

National Eating Disorders Awareness Week

February 24 - March 3, 2002
www.NationalEatingDisorders.org
(206) 382-3587

Caffeine, Smoking, and Some Herbal Medications Interfere with Olanzapine

Olanzapine, first introduced in 1996 as a treatment for schizophrenia, acts by inhibiting the action of two primary neurotransmitters, dopamine and serotonin, in certain brain centers. It also acts to correct an imbalance of nerve impulse transmissions thought to be responsible for certain mental disorders. Certain substances can interfere with the drug's effectiveness.

Olanzapine is highly metabolized in the liver. Although food does not affect absorption of the drug, caffeine and smoking can affect blood levels. Both caffeine and smoking interact with liver enzyme P450-CYP1A2, the very enzyme that metabolizes olanzapine. Caffeine markedly increases blood levels of the drug and in turn increases the risk of adverse reactions. Smoking can decrease the blood levels of the drug, making it less likely to be effective. Certain herbal medications can also interfere with the drug. Kola and ma huang (ephedrine) can increase central nervous system stimulation. Gingseng may have MAO inhibitor properties and should not be used with olanzapine. Valerian and kava-kava can interact with olanzapine to increase drowsiness.

Binge Eating Triggered by a Parasite

Researchers from Spain recently reported what may be the first recorded case of binge eating disorder brought on by a parasitic intestinal disease (*Int J Eat Disord* 2001; 30:107). A 19-year-old woman had bizarre and frequent bouts of overeating and extreme loss of weight. The mystery was cleared up once it was found that she had an infestation with *Taenia solium*, the solitary tapeworm, acquired by eating undercooked pork. After successful treatment, the patient continued to have frequent binge-eating episodes and inappropriate eating patterns and gained weight over a normal range. No purging was detected.

Predicting Who May Drop Out of Inpatient Treatment for AN

Patients with anorexia nervosa (AN) are often extremely resistant to outside intervention, and frequently refuse treatment. It is no surprise that many drop out of treatment early, and that as many as 50% of patients will have relapses.

In past studies, predictors of early dropout included: later age at onset of AN, older age when treatment began, less education, and lower socioeconomic status. Results of a recent study indicate that successful completion of inpatient treatment for AN may not be related to the severity of the disease (*Int J Eat Disord* 2002; 30:237).

More severely ill patients were not more likely to drop out of treatment early.

Drs. Kathleen M. Pike and Caroline Kahn studied 81 severely underweight individuals with AN who received free inpatient treatment for AN at a clinical research unit. The patients were divided into those who were discharged before reaching their target weight of 90% of ideal body weight (IBW). All others were categorized as program completers.

The treatment dropout group was then divided into two subgroups, early and late dropouts, based on the percent IBW at discharge. Subjects discharged at or below 80% of IBW were categorized as early dropouts, while those discharged at or above 81% of IBW as late dropouts.

Study participants were assessed with clinical interviews, the EAT-26, the Body Shape Questionnaire, the Beck Depression Inventory, and the Symptom Checklist 90-Revised (a 90-item self-report measure designed to assess a wide range of symptoms). Other measures included the Inventory of Interpersonal Problems and the Rosenberg Self-Esteem Scale.

Group profile

The subjects were between 16 and 45 years of age, and all were severely underweight at admission. Mean BMI at admission was 15.1, at 69% of IBW. The mean duration of illness was nearly 8 years, during which the patients had been hospitalized for a mean of 1.9 times. They had first become ill with AN from 12 to 33 years of age. Thirty patients (37%) met criteria for restrictive AN and 51 (63%) met criteria for binge-purge subtype of AN. The mean hospital stay was 83 days.

Who dropped out, and why?

One-third of patients dropped out of treatment before reaching 90% of their IBW. Those who dropped out prematurely were slightly more likely to have a binge/purge subtype of AN (77.8%) than those who completed the program (55.6%). Compared with the late dropout group, the early dropout group had slightly more previous hospitalizations. No other differences were noted.

The overall dropout rate of 33.3% is substantially higher than the average rate of 16% reported in the general psychiatric literature. Inpatients with AN seem to be twice as likely to drop out of treatment than inpatients on a general psychiatric ward; the authors report this is not surprising given the well-known treatment resistance seen among many AN patients.

Early and late dropouts

The only remarkable difference between early and late dropouts was that those who dropped out in the earliest phase of treatment had more prior hospitalizations than those who dropped out later.

One striking finding was that patients who dropped out of treatment were hard to differentiate from patients who completed the program on all baseline measures except subtype. The absence of significant differences suggests that for persons with AN, compliance with treatment may be unrelated to illness severity and character disturbances.

Contrary to what Drs. Kahn and Pike expected, the more severely ill patients were not more likely to drop out of treatment early. One drawback to the study was that a continuous variable (% IBW at discharge) was artificially divided into group variables.

ED Symptoms Linked to Attitudes About Exercise

In some settings, extremely high levels of physical activity have been part of the equation of eating disorders. In a recent Swedish study, eating disorder symptoms in young women were associated more with attitudes about exercise than with the amount of exercise.

K. Seigel and J. Hetta, of the University Hospital of Uppsala, Sweden, randomly sampled 726 women aged 17-23 with a self-administered questionnaire (*Eat Weight Disord* 2001;6:32). The women were divided into two groups: (1) high-level exercise, or those who exercised at least 6 times a week for at least an hour, and (2) those with obligatory attitudes to exercise, those who scored above the 95th percentile on a composite score of obligatory exercise items. Both groups were then compared to a control group.

Those in the obligatory exercise group scored high on body image concerns, recurrent weight-reducing attempts, binge eating and post-prandial impulses to vomit. Those in the high exercise group did not have any of these characteristics. Women in the obligatory exercise group also had symptoms related to stress and particularly a high level of general activity coupled with perfectionistic ambitions, which was not noted in the high-exercise group or in controls.

Leptin May Affect Hormonal Levels in Men

Males with anorexia nervosa have lower-than-normal testosterone levels, which leads to decreased sex drive and performance. When healthy weight is restored, testosterone increases and gender-related behaviors are normalized. In what is believed to be the first study to analyze the effects of serum leptin concentrations on reproductive function in anorectic men, German researchers report that leptin may play an important role in regulating the hypothalamic-pituitary-gonadal axis and fertility among underweight men, just as it does in underweight women.

Serum leptin levels charted during weight gain

Dr. Martin Wabitsch and colleagues measured serum leptin, luteinizing hormone, follicle-stimulating hormone, testosterone, and sex-hormone binding globulin among 3 men with anorexia nervosa every 2 weeks as the men regained weight (*J Clin Endocrinol Metab* 2000; 86:2982). At the time of referral, BMI values of the patients ranged from 12.5-17.3 kg/m^2 and leptin levels ranged from below 0.03 mcg/l to 1.3 mcg/l. At the beginning of the study, the men's serum leptin levels were below the 5th percentile. During weight gain, their leptin levels reached or passed the 95th percentile.

The temporal dynamics of body mass index and fat mass were closely related to serum leptin concentrations, and leptin increments were paralleled by increases in gonadotropins, testosterone, and the free androgen index (FAI). The authors noted that possible regulation of the hypothalamic-pituitary-gonadal axis in males with anorexia nervosa by leptin levels correlated with the finding that the changes of leptin levels over time were significantly correlated with those of gonadotropins, testosterone, and FAI.

It has also been shown repeatedly that androgens inhibit leptin production in adipose tissue and thus contribute to the gender differences in leptin levels. In the authors' study, however, increasing testosterone levels did not lower leptin levels. This might be explained by strong overriding mechanisms associated with weight gain, that lead to an exaggerated leptin increment in anorectic patients.

The authors pointed out several drawbacks to their study beyond the small number of participants. The system that regulates fertility is very complex, much more so than is accounted for by the relatively simple hypothesis of this study. Also, one patient was clinically in a prepubertal stage, and those findings could not be directly related to fertility.

Exercise Combats Age-related Weight Gain

With age, Americans tend to gain weight and become increasingly overweight. One prescription has been to encourage all Americans to get more exercise in their daily lives. But how much exercise is enough to prevent weight gain later in life?

Dr. Larry T. Wier and other researchers tested 34 male and 155 female employees at the NASA/Johnson Space Center in Houston over 5 years (*Int J Obesity* 2001; 25:613). After completing a 3-month education program in the employee health-related fitness program, employees participated in the self-supervised exercise program that included periodic re-testing.

Fitness tests were offered on a voluntary basis every 3 months. The periodic evaluations included measurements of weight and percentage body fat; the researchers also recorded each participant's results on 1-minute bent-knee sit-ups, 1-minute pushups, and a sit and reach test of low back/hamstring flexibility.

Weight was measured at baseline and follow-up, and the amount of habitual physical activity was derived from the multiple rating of the NASA Activity Scale, or NAS. The 11-point scale (0-10) is based on the total minutes spent per week in exercise or the total weekly miles run or walked. Subjects used this scale to rate their general activity over the past 30 days. A rating of 0-1 would indicate very low activity, while a rating of 2-3 would represent regular recreation or slight work in such activities as golf or yard work for a weekly total of between 3 minutes to 2 hours. Ratings of 4-10 represented regular participation in aerobic exercise and from light to heavy exercise.

Substantial but manageable regular exercise is best

The researchers found that a substantial but manageable amount of regular exercise was needed to avoid weight gain. In this case, the activity needed to maintain weight for 5 years required a mean NAS score of 6.0 for men and 5.6 for women. This meant participation in aerobic exercise and light-to-heavy exercise. Weight change was a function of several factors, including initial weight, time between tests, gender, and physical activity habits. For the same level of activity, heavier men and women had the most favorable change in body weight.

Age and gender made a difference. Older men gained less weight than younger men for the same baseline weight and level of physical activity. This age-related difference was not noted among women. The level of physical activity had a greater effect on weight change for higher baseline weight levels. For men, the influence of exercise increased from the age they started a regular exercise program, so that if two 100-kg men exercised at an average NAS level of 6 (active), a 25-year old man could expect to lose about 0.15 kg per year, while a man 30 years older would lose nearly 0.6 kg per year. In contrast, a 90-kg woman with a mean NAS of 6 would lose about 0.7 kg per year while a 70-kg woman with the same NAS score would lose 0.2 kg per year. At the end of the study, the authors found

that men maintained a higher mean activity level than women and thus had an insignificant amount of weight gain (over 5.7 years). Women exercised less and had a mean weight gain of 1.4 kg over 4.9 years. Only men and women who maintained a high level of exercise (NAS >6.5) lost weight.

Self-reported activity records, such as those using the NAS, can be helpful for predicting long-term weight change and may be useful when counseling clients about the value of physical activity for weight control.

Cardiac Changes in Anorexia Nervosa

Cardiac abnormalities are common among patients with anorexia nervosa. Findings from two recent studies provide new information about cardiovascular changes in such patients.

Exercise: Why do patients have low cardiac workloads?

Despite cardiac abnormalities, many patients can successfully exercise at a high level. Findings from a controlled study at the University of Pisa, Italy, help explain why.

To test exercise performance in patients with anorexia nervosa, the researchers compared 19 female patients with anorexia nervosa (mean age: 23 years) and 20 constitutionally thin women matched for age, height and level of physical activity. For the women with anorexia nervosa, mean weight was 37.3 kg and body mass index (BMI) was 14.4 kg/m^2. The thin women had a mean BMI <19 kg/m2. All the women underwent clinical examination, standard ECG tests, and a cardiopulmonary stress test (*Ital Heart J* 2:462).

Patients with anorexia nervosa had a lower heart rate and lower systolic blood pressure at peak exercise (148.8 vs. 171 beats per minute) and a significantly lower workload (85.5 vs. 117.2 W), and oxygen uptake (VO_2), both at rest

continued on page 8

BOOK REVIEW

Eating Disorders: Everything you need to know

(Jim Kirkpatrick, MD and Paul Caldwell, MD Firefly Books, Buffalo, NY. 2001, 201 pp., $14.95)

Written by two experienced family physicians, one of whom has treated several hundred patients with eating disorders as an eating disorders "intensivist," this highly informative book will provide patients, families and others with an authoritative, up-to-date review of all aspects of eating disorders. Topics covered include diagnoses and associated concepts, factors that complicate eating disorders (i.e., co-morbid conditions), pathogenesis, medical and psychological treatments, and the recovery process.

As you would expect in a book by such authors, the medical aspects of eating disorders are covered extremely well. A body mass index chart will demystify this measurement for lay people. Issues regarding hunger, satiety, set point theory, medical consequences of semi-starvation and problems resulting from repeated vomiting, binge eating, overexercise, misuse of laxatives, diuretics and emetics are all described simply and accurately, including impact on menstrual function, osteopenia-osteoporosis, and other health consequences. Line drawings of the pertinent physiological systems help illustrate these accounts.

Complicating factors discussed include mood disorders, obsessive-compulsive disorder, personality disorders, alcohol and substance abuse, pregnancy, diabetes mellitus and sexual abuse. The chapter on understanding eating disorders spans social causes from media influences to exercise trends. Psychological factors described include personality in general, perfectionism, self-esteem, identity factors, coping functions of eating disorders, gratifications associated with disordered eating, and self-punishment. Biological factors considered range from genetics to the set point theory. An excellent section discusses family-related issues: Is there a typical family? Is the family to blame? How do eating disorders change families? What sorts of family dynamics affect recovery? What can the family do? The section ends with advice to parents and others on how to deal with a family member with an eating disorder.

Medical treatment chapters outline the rationale and goals of treatment and discuss appropriate settings, for treatment, including various hospital and community base programs. They address issues such as when involuntary hospital treatment should occur. Refeeding programs, the uses and limitations of medications for treating eating disorders and their consequences are considered.

The psychological treatment sections reveal that the authors have an excellent understanding of compassionate, humane psychotherapy. The basic components of healing relationships are described, including warmth, trust, hopefulness and empathy, following which the discussion addresses rationales for and specific values of cognitive-behavioral and interpersonal approaches, nutritional education, individual, group and family therapies, experiential therapies, and others. There is a strong admonition and excellent discussion of the need to watch out for quackery in psychotherapy.

The final chapter, "The Road to Recovery," will appeal to many patients who are beginning to think about how to turn their disorders around. Here are stories of women who are struggling with all stages of recovering – tentatively contemplating getting started, muddling along, considering whether formal treatment is needed, seeking options for what might help when nothing seems to be working, trying to prevent relapses, and considering a large selection of self-help strategies. Useful lists of sources and resources are appended.

The book is formatted in a highly readable form, with box inserts in each chapter that sidebar and highlight special points, the subjective voices of sufferers, and interesting oddities: Consider "What do people feel their eating disorders are about?"; "Were the Roman Emperors Bulimic?"; "Vomiting and Diarrhea as Medical Treatments"; "Leptin: the hormone of obesity?"; "Perfectionism makes eating disorders worse"; and many others.

In short, I will gladly recommend this thin, easy-to-read, accurate, informative and helpful book to my patients and their families. I expect it may answer many questions for them and raise others that we can fruitfully discuss during treatment.

—J.Y.

Nutrition Notes

Nasogastric Tube Feeding: From the Patient's and Parents' Perspectives

As a clinician, I often try to imagine myself in the client's shoes. Envisioning myself on the receiving end of treatment helps me better understand the client's experience and, in turn, helps improve the way I practice. Over the years I have wondered what it must be like for patients receiving nasogastric tube feeding (NGTF). Most are terrified to gain the slightest amount of weight, and what thoughts and feelings must this treatment intervention evoke for them?

Until recently, the eating disorders treatment community could not confidently answer this question. As mentioned in *Nutrition Notes* in the September-October 2001 issue of *EDR*, few published studies have investigated the psychological impact of NGTF.

However, last May, Dr. M. Neiderman and his colleagues reported the results of their qualitative study of patients' and parents' reactions to NGTF. Using semistructured self-report questionnaires, the researchers asked 21 former patients and 37 parents about their experiences with NGTF. All the patients, who were 8 to 15 years of age at the time of treatment, and 9 to 31 years of age at the time of the study, had received NGTF at either Great Ormond Street Hospital for Children or Huntercombe Manor, in the United Kingdom. Both facilities specialize in the treatment of child- and adolescent-onset eating disorders. By assessing the range and depth of views held by patients and their parents, Dr. Neiderman and his coworkers hoped to enhance their clinical practice.

Consent to Proceed with NGTF

The questionnaires revealed that only 29% of the former patients had consented to the placement of the nasogastric tube. Most refused the tube because they feared weight gain and/or a loss of control over their nutritional intake. Those who consented to NGTF did so mainly for the following reasons: (1) to get better; (2) to have control for eating taken away from them, and (3) due to fears of being detained under a legal order.

The high incidence of patients refusing consent may explain why 63% reported physically resisting the passage of the nasogastric tube and subsequent refeeding. Almost all these patients had to be restrained by the nursing staff. The others stated that they had been sedated so the tube could be passed more easily. Once in place, 55% of the patients reported removing the tube on their own. All but three removed the tube five or more times. One patient stated that she had turned off her electric pump and tied knots in the lower end of the tube. It would be interesting to know whether giving consent, or not, had an impact upon the patient's overall experience with NGTF.

Although two parents could not recall being asked, all the other parents had given consent for their child to receive NGTF. The parents identified four primary reasons for giving consent: (1) 44% were trying to prevent their child from dying through starvation and/or dehydration; (2) 25% recognized there was no other way to feed their child; (3) 19% were trying to aid their child's recovery, and (4) 12% were accepting the medical advice offered by their child's clinician.

The NGTF Experience

Even several years after the event, the experience of receiving NGTF evoked strong reactions for both patients and their parents. While 66% of the patients regretted the treatment intervention at the time, in retrospect, they thought it was necessary. Some of the patients expressed gratitude toward their care providers and identified NGTF as the first step forward in their treatment. The reaction of the remaining 34% of the patients is best summarized by the statement: "I hated it then and I hate it now." Most of these patients identified the intervention as unhelpful and felt that it was intrusive, unpleasant, and an unforgettable experience.

The parents' responses were similar to those of the patients, although they had to be viewed from a perspective that reflected the increased responsibility of making the final decisions for their children. Seventy-three percent of the parents reported NGTF was a regrettable necessity. They recognized it as a last resort that was required to keep their child alive. In contrast, the other 27% of parents described a more negative experience, and many cited uncaring clinicians.

However, at the same time, 67% of patients and 84% of parents could not identify a suitable alternative to NGTF. The suggestions that were offered by patients included oral feeding, liquid supplements, medication, or patients should be allowed to starve themselves. Three parents and one patient suggested a gastrostomy or jejunostomy. Other ideas offered by parents were: providing better food, allowing more time, introducing small amounts of food combined with a gentle approach and/or bribery, and allowing starvation to continue unimpeded.

Advice Offered to Others

Patients and parents were asked about the advice they would offer to others in the same position. The most common advice provided by patients was to encourage others to eat and not to get into such an extreme situation in the first place. Once NGTF had begun, most of the patients advised others not to resist, if only to avoid an even more unpleasant experience.

The parents advised other parents to ask any and all questions, become educated about the procedure, including any possible risks and alternatives, to answer any questions asked by their children, and to offer their child reassurance. The advice regarding parental involvement in treatment was mixed. Two parents in the

study reported holding their child during the placement of the nasogastric tube. One parent stated that this was a positive experience and recommended active involvement in care; the other parent reported having a horrific experience and felt parental involvement was detrimental to the child's treatment.

Treatment Outcome

The researchers did not find an obvious relationship between a patient's reaction to the experience of receiving NGTF and the eventual outcome. Despite the fact that most patients were highly resistant to the treatment intervention at the time, 50% of the patients had achieved good health and 42% had achieved an intermediate state of health at the time of the study. The outcome scores were based on Morgan-Russell categories and calculated for each individual using the mean of patient/parent responses after demographic and basic health-related information was collated.

Guidelines for Good Practice

The study was a valuable learning experience for the researchers. Both patients and their parents offered useful and practical suggestions about the process of NGTF. Thus, Neiderman and his colleagues recommend the following measures to guide and further enhance existing clinical practice standards:

1. Develop clearly written guidelines regarding the consideration and use of NGTF.
2. Provide an information sheet that contains details about the procedure, including risks, criteria for ending feeds, expected outcome, suggested reading, and a point of contact available to act as a liaison between the family and clinical staff.
3. Where practical, ask patients who they would like to be involved and ask the parents what level of involvement they would like to have. Discuss the advantages and disadvantages of their decisions.
4. Share with the patients and their parents the views of others who have undergone the process. Provide names of parents/patients willing to act as a point of contact if possible.
5. Continually reassess the situation.
6. Encourage the patient to take part in the decision-making, insofar as practical. Try to engender in the patient a sense of empowerment and control by helping her recognize that, although she may not have a choice in this instance, she still has other choices (e.g., where the procedure takes place).
7. Educate all staff in detail about the issues surrounding nasogastric feeding.
8. If a nasogastric tube is inserted or used at a site away from the specialist eating disorders unit, consider sending a specialist liaison clinician to the place where the procedure is being done, to offer advice and support.
9. Always be available to answer questions and to discuss the procedures involved.

Reference

Neiderman M, Farley A, Richardson J, and Lask B. Nasogastric feeding in children and adolescents with eating disorders: Towards good practice.(*Int J Eat Disord* 2001; 29: 441).

— Linda M. Watts, MA, RD

Serotonin Levels and Self-Destructiveness

Patients with bulimia nervosa have been found to have changes in brain serotonin (5-hydroxytryptamine; 5-HT) activity, and to have an increased propensity for risk of suicide and self-injury. Because of the inverse association between 5-HT activity and the potential for self-harm, Canadian researchers recently examined the connection between 5-HT status and self-destructiveness in normal patients and those with bulimia nervosa.

Structured interviews and self-report questionnaires were used to assess 40 bulimic women and 21 women with normal eating patterns (*Psychiatry Res* 2001;103:15). The researchers evaluated the following: (1) a normal history of parasuicidal actions or self-injury, and (2) any problems in mood and impulse regulation. They then tested both groups to establish 5-HT function and serial prolactin and cortisol responses after administration of a partial 5-HT agonist, meta-chlorophenylpiperazine (m-CCP).

Neuroendocrine changes

In comparison to nonbulimic women, the bulimic women had blunting of serial prolactin and cortisol responses after receiving m-CPP. This was most marked among bulimic women who had a history of self-destructiveness. The authors suggest that some serotonergic anomalies reported in BN patients, such as reduced neuroendocrine response after m-CPP, may be characteristic of persons showing a clear-cut potential for self-destructiveness.

Where Do Concerns About Shape and Weight Come From?

Clients with anorexia nervosa and bulimia nervosa are known to have a range of abnormal attitudes and behaviors related to their weight and shape. Where do these concerns begin, and is there a clear pathway from concern to abnormal behavior to development of the disorder? Are weight and shape concerns universal among persons with eating disorders? Drs. Simon G. Gowers and Alison Shore at the University of Liverpool, England, sought to answer some of these questions (*Br J Psychiatry* 2001; 179:236).

Concerns arise late in childhood

In their review of the literature, the researchers found that weight and shape concerns follow a developmental pathway that arises before the typical age for developing an eating disorder. Such concerns commonly arise late in childhood and develop throughout adolescence. The origins of concern about shape and weight are many, including , family attitudes and beliefs, adverse experiences, and the effects of sociocultural factors. They also suggest that although weight and shape concerns often underlie the development of an eating disorder, an alternative pathway may be impulsivity and fear of loss of control.

To recognize and prevent development of an eating disorder, the authors suggest that clinicians focus on attitudes and concerns that lead to dieting behaviors, rather than zeroing in only on dieting.

Questions & Answers

What Exactly Is Alexithymia?

Q. I have been told that patients with anorexia nervosa often have alexithymia. Exactly what is alexithymia, how common is it in anorexia nervosa, and what does it signify? *(M.N., Dallas)*

A. Alexithymia refers to three specific characteristics of psychological functioning. Individuals with alexithymia usually have difficulty identifying and describing their own feelings, and they tend to be limited in their capacity to introspect. Instead, they mostly think in an externally oriented manner.

Community based studies have shown that, on average, individuals with anorexia nervosa do not show higher ratings on an alexithymia scale than controls. However, a sizeable minority, about 20%, of persons with teenage-onset anorexia nervosa actually do have very high alexithymia scores, even after recovering their normal weight. Careful examination of this subgroup suggests that these individuals may also be more likely to have some degree of obsessive-compulsive personality disorder (OCPD) and of "empathy disorder," defined as impairment of the ability to understand the cognitive and emotional perspectives of other people, and histories of difficulties in social interactions throughout childhood and in the interview. But these associations are not very robust (*Acta Psychiatrica Scandinavica* 1997; 95:385). Although early observations relating alexithymia, OCPD and empathy disorders are intriguing and suggestive, they are inconclusive, and additional research is needed to sort out these relationships and their possible implications.

Other studies have shown that high alexithymia scores in patients with eating disorders correlate with their degree of clinical depression (*Psychiatric Research* 2000; 93:263). This finding suggests that alexithymia may partly reflect the mental *state* of the patient, and not merely reflect an enduring *trait*.

—J.Y.

Nibbles, by Hunter

"Try our new Yo-Yo Diet…we make OURS with Oreos!!"

continued from page 5

and at maximum VO_2 (9.5 vs. 12.8, and 28.0 vs. 40.2 ml/kg/minute) than the women without anorexia nervosa. Cardiac workload, rate pressure product, anaerobic threshold, maximum minute ventilation, and oxygen pulse were all significantly lower among the women with anorexia nervosa than the control group.

The authors hypothesize that the low VO_2, both at rest and during exercise, allows patients with anorexia nervosa to maintain a relatively high level of physical activity.

Abnormal ECG findings

Patients with anorexia nervosa also have abnormal findings on electrocardiography, including prolonged QT duration and dispersion. After their experience with 49 patients, Belgian clinicians advise that marked repolarization changes (such as prolonged QT interval and/or T wave shapes) in patients with anorexia nervosa should not be taken as a normal feature of the disease, but should call for a search for other potential causes, such as metabolic and electrolyte disturbances or drug reactions (*J Cardiol* 2000;34:42).

In the Next Issue

Body Composition Changes in Anorexia Nervosa: A Review

By Laurel Mayer, MD, Columbia College of Physicians and Surgeons, Columbia University and the New York State Psychiatric Institute, New York, NY

One of the greatest fears of persons with anorexia nervosa is gaining weight and becoming "fat." New research shows that some patients may regain weight in an abnormal pattern, which may affect treatment approaches.

PLUS

- **Why aren't anorectic patients more tired?**
- **Tryptophan depletion in bulimia nervosa**
- **Grhelin: a novel, weight-regulating hormone**
- **Teasing and its effect on body image and self-esteem**

And much more..

EATING DISORDERS REVIEW
Index

Volume 12, January to December 2001

(Numbers indicate issue and page)

Books Reviewed in Volume 12