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RESEARCH

Protocol to Treat Anorexia Is Faulted

By **RONI CARYN RABIN** JAN. 2, 2012

When a malnourished teenager with anorexia nervosa is admitted to the hospital, weight gain is a top priority — and food is medicine. But doctors mete out meals with caution, providing fewer calories than needed at first because the patients may be so frail that major swings in diet can be life-threatening.

The strategy, called “start low, advance slow,” often results in further weight or fluid loss during the first day or two of hospitalization. Now some researchers and health providers, both in the United States and abroad, are challenging the start-low approach, suggesting that many patients could be fed more aggressively as long as they are closely monitored for medical complications.

Scientific evidence in support of the start-low method has been scarce. In a study published online in *The Journal of Adolescent Health* in August, researchers at the University of California, San Francisco, sought to evaluate it more closely, examining weight gain in hospitalized teenagers on a recommended refeeding protocol, in what they believe is the first study of its kind.

The study, which involved 35 young people, found that 83 percent on the start-low regimen, who were fed 1,200 calories a day with increases of 200 calories every other day, lost weight. Over all, patients did not regain the newly lost weight until the sixth day in the hospital, on average.

“It’s very upsetting to parents,” said Andrea K. Garber, an associate professor of pediatrics at University of California, San Francisco and the lead author of the study. “The irony is that the goal of hospitalization is to get the kids renourished, and we’re spending the first eight days without any weight gain.”

While it is not unusual for a patient with anorexia to lose weight after hospitalization, most practitioners attribute it to fluid loss, mostly water.

“There is a body of evidence that our older, more cautious feeding strategies are older and more cautious than they need to be,” said Dr. David S. Rosen, a professor of pediatrics, internal medicine and psychiatry at the University of Michigan Medical School, who leads the American Academy of Pediatrics Committee on Adolescence.

Still, he and other doctors are urging caution before making any radical changes in treatment, saying more research needs to be done. Twenty percent of the patients in the U.C.S.F. study had low blood phosphorus levels, indicating an electrolyte imbalance and a high risk of developing a potentially lethal condition called refeeding syndrome, Dr. Rosen noted.

“We’ve proven that with the regular approach, we don’t make as much progress as we’d like,” he said. “But do we know that feeding people more aggressively is a safe thing to do? The answer is, not really.”

Though medical practices are far from uniform and treatment is individualized depending on the patient’s circumstances, a typical regimen starts young patients with meals and snacks totaling around 1,200 calories a day.

Newer regimens being evaluated — and already introduced in some inpatient programs — start patients with 1,900 calories a day. Within a week and a half, a patient may be consuming 3,000 or more calories a day. The danger is that these patients may experience refeeding syndrome, which can lead to numerous complications including cardiac arrhythmia and death, when trying to return to normal diets too quickly. These patients also may have developed digestive disorders like constipation, diarrhea and reflux disease. They may vomit involuntarily because the stomach and digestive capacity is diminished.

And there are the psychological concerns. Starvation affects cognitive ability, experts say, and often counseling cannot be effective until weight is restored. Until then, patients with eating disorders are prone to continuing aversions to food.

“Think about the psychological trauma of being in a hospital and having to eat all this food,” said Marjorie Nolan, a registered dietitian in Manhattan who specializes in eating disorders and a spokeswoman for the Academy of Nutrition and Dietetics. “These adolescents are so young they can’t process the information, and here they’ve gained five pounds in a week and their biggest fear is happening: They’re getting fat. Which we know isn’t true, but that’s how they see it.”

Ms. Nolan said one of her patients, who is now 18, was fed aggressively at age 15, and it set her recovery back in the long term.

“They got the weight back on her, which medically stabilized her to a degree, which was necessary, but it was so aggressive that now, several years later, she’s still traumatized by it,” Ms. Nolan said.

One 27-year-old woman from the New York City area who was hospitalized twice, at age 18 and again at 20, said aggressive refeeding can be psychologically overwhelming and even physically painful.

“Your stomach shrinks when you don’t eat, so it feels like Thanksgiving, every day, when you are in the hospital getting large quantities of food,” said the woman, who asked that her name be withheld to maintain her privacy. “It’s physically difficult to walk around afterward, and it’s hard to keep it all down.” After having consumed so little for so long, she said, “you eat a carrot, and you feel it.”

She said she regained a lot of weight during her first hospitalization but was so upset by the rapid gain that she promptly lost the weight as soon as she was discharged. Two years later, she was hospitalized again but remained in the hospital for a longer stay of six weeks.

Current guidelines from the American Academy of Pediatrics recommend slow refeeding of malnourished children and teenagers to prevent refeeding syndrome; the Society for Adolescent Health and Medicine also recommends “gradual increase of calorie intake.”

Yet in an editorial accompanying the new study from U.C.S.F., Dr. Debra Katzman, head of the division of adolescent medicine at the Hospital for Sick Children in Toronto, said that overzealous application of the conservative refeeding guidelines had resulted in death in some cases.

In the United States, pressure to keep hospital stays short has made rapid weight gain even more urgent, because the goal is to restore as much weight as possible before discharge, she said in an interview.

Experts agree that much more research is needed to develop clear, evidence-based guidelines for treatment.

“We don’t know the best way to treat these kids, even when they wind up in the hospital,” Dr. Rosen said. “It’s a balancing act. What you want to do is find the sweet spot between feeding people as aggressively as you can but not causing refeeding syndrome, which is a lethal, scary, dangerous disease.”

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