Home parenteral nutrition and the eating disorder patient: challenges, expectations and realities of therapy

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Background

Patients diagnosed with eating disorders (EDs) have been referred for home parenteral nutrition (HPN) therapy, which can cause a dilemma for the home infusion team particularly when there is no intestinal failure or contraindication to oral diet/enteral nutrition (EN). The experienced infusion RD has a high skill level in HPN management but typically does not have advanced training in EDs.

An ED patient with normal gastrointestinal (GI) function was referred to a national home infusion company to provide PN to help gain weight. This abstract evaluates the complexity of ED in this case presentation when providing HPN.

Methods

Outpatient PCP referred patient for PN to home infusion provider after central line placement. Table 1 outlines patient's presentation history. Due to stipulations of patient's insurance plan, it was necessary for the infusion provider to accept patient on service despite questionable appropriateness of HPN per infusion team assessment since patient had a normal functioning GI tract (Image 1). Infusion team discussed HPN concerns with provider, and patient was presented with options from the infusion RD including inpatient admission, using EN instead, and compliance required for HPN. Patient favored HPN with PCP in agreement, as the option best suited for her health needs.

Results

Patient was educated regarding HPN therapy goals for weight gain and compliance expectations including scheduled RN visits, weekly pharmacy communication for coordinating supplies/deliveries, and infusing PN as ordered. During course of therapy, PN never advanced to goal and patient wasted 12 bags, a significant issue during critical national shortages of PN components and supplies. Patient verbalized complaints to infusion team regarding calories, protein, fluid, and lipids in PN, not allowing home infusion RN to administer lipids for several days, resulting in inability to reach established goals of PN calories and weight gain. Patient stated she had issues with the HPN pump despite it being replaced and trialed several times by pharmacy prior to sending. The provider was notified that patient did not infuse PN as ordered, therefore PN adjustments could not be made, as recommendations are based on consistent infusion of prescribed dose.

Conclusion

Early identification of altered eating patterns and distorted body image can be made by the nutrition support team that has advanced training in EDs, as these patients often experience a variety of psychiatric disorders (Image 2). RDs provide medical nutrition therapy, assessment of nutrition status and appropriateness of therapy, make nutrition recommendations, and provide feedback to the provider. If assessment determines that oral/EN cannot meet nutrition needs and PN is required, a collaborative approach by the care team including discussion of patient compliance expectations is vital to achieve success with HPN. Home infusion therapy applications in EDs are limited and given the nature of EDs, require a collaborative approach by an interdisciplinary team of mental health, nutrition, and medical specialists. If PN is the route chosen to provide nutrition, practical approaches should include provider, ED RD and infusion RD communication to discuss appropriateness, risk/benefit and goals of HPN prior to start of care. (Table 1).

Table 1. Patient demographics

Age	**31 years old**
Gender	**Female**
Weight	**48.5kg**
Indications for TPN	**Electrolyte imbalance**
Operators of TPN	**Herself and spouse**
Intravenous feeding components	**618 kcal**
Energy/kg BW (kcal)	**13kcal/kg ABW**
AA/kg BW (g)	**1gm/kg ABW**
HPN-related complications	**Patient stopped infusing**
Outcome of HPN	**HPN did not reach goal, patient declined infusing**
Weight change	**None**

Image 1. Consensus recommendation

American Society for Parenteral and Enteral Nutrition (ASPEN)

PN offers a life-sustaining option when intestinal failure prevents adequate oral or enteral nutrition.

Use PN in patients who are malnourished or at risk for malnutrition when a contraindication to EN exists or the patient does not tolerate adequate EN or lacks sufficient bowel function to maintain or restore nutrition status.

When Is Parenteral Nutrition Appropriate? *Journal of Parenteral and Enteral Nutrition.* Vol 41, #3, March 2017; 324-377.

Image 2. Position statement

Academy of Nutrition and Dietetics (AND- formerly American Dietetic Association)

The complexities of EDs require a collaborative approach by an interdisciplinary team of mental health, nutrition, and medical specialists.

RDs are integral members of treatment teams and are uniquely qualified to provide medical nutrition therapy for normalization of eating patterns and nutrition status. However, this role requires understanding of the pathophysiologic and neurobiologic aspects of EDs.

Advanced training is needed to work effectively with this population.

Position of the American Dietetic Association: Nutrition Intervention in the Treatment of Eating Disorders. *Journal of the American Dietetic Association.* August 2011; 1236-1241.