Case report

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Severe anorexia nervosa presenting with purging via Percutaneous Endoscopic Gastrostomy (PEG) tube: A clinical case report

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Abstract

This report presents a chronic case of Anorexia Nervosa in a 24-year-old female who was diagnosed at 12 years of age. Despite several hospital admissions, combined with Pharmacotherapy, Psychotherapy and nutritional rehabilitation via Nasogastric (NG) and PEG feeding, her condition showed poor response. Furthermore, the PEG tube proved counter-therapeutic in her management as it led her to develop maladaptive behavior of purging through the PEG tube following binge eating episodes. This case elaborates the need for close monitoring and selecting modes of enteral feeding in patients with severe Anorexia Nervosa.

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Introduction

Anorexia Nervosa is predominantly seen in adolescent females and has one of the highest mortality rates out of all psychiatric disorders.

It is categorized as a feeding and eating disorder in ICD-11, which is characterized by,

- Significantly low body weight considering their age, height and developmental stage. BMI under 18.5kg/m^2 for adults/ below the 5th percentile for children and adolescents.
- Low body weight is not explained by medical conditions or lack of food availability.
- Behaviours are aimed at achieving or maintaining low body weight such as fasting, consuming low calorie foods and using purging methods. Some indulge in excessive physical activity.
- Distorted body image characterized by inaccurately perceiving them as overweight which leads to compulsive behaviours like frequent weighing, body checking, mirror checking or counting food calories.

Apart from them there is a constellation of symptoms including obsessional features, low mood, impaired concentration, loss of sexual appetite and poor sleep. Some individuals are encouraged by additional motives, such as asceticism, desire to feel special and wish to punish themselves.

Although early diagnosis and multidisciplinary management leads to recovery in many cases (Window of effective interventions within the first three years of symptom onset), some cases take a chronic relapsing and remitting course. Although NG feeding is commonly done in cases of Anorexia Nervosa where the patient is unable to maintain the energy intake, PEG tube insertion is also advocated in extreme cases, but poses a risk of being counter-therapeutic in patients with tendencies towards compulsive and manipulative behaviour. This case underscores the potential misuse of PEG tubes and the importance of continuous clinical oversight.

Case History

This 24-year-old female from Western province, Sri Lanka initially presented to Lady Ridgeway Hospital for Children at the age of 12 years with extreme dietary restriction, body image distortion, frequent self-weighing along with meticulous calorie tracking behaviour. These symptoms have precipitated during a period where her academic performance declined, and she attained menarche.

She has been started on Fluoxetine and over the next decade she required inward management multiple times for establishing oral feeding, psychiatric management and management of medical complications like Hypoglycaemia and Electrolyte disturbances. During these admissions she was started on various psychopharmacological agents, psychological therapies and nutritional support through NG feeding. Despite these efforts she did not achieve sustained remission.

Due to persistent inability to maintain oral feeding, at 18 years of age (in 2019), a PEG tube was inserted to supplement her oral feeding which was planned by Gastrointestinal surgical team and subsequently she began to misuse the PEG tube to expel food following episodes of binge eating for about one year. She consumed considerable amounts of time for this procedure – sometimes about two hours after a meal – which led to further decline of her body weight. Her functioning has also been affected due to her chronic illness, and her menstrual cycles have been significantly irregular.

Furthermore, one of her siblings has been diagnosed with Obsessive Compulsive Disorder and is currently on treatment and is functioning well, and also there is significant impact on her family due to her condition where, her father is also been treated for depression.

She was admitted to the Psychiatry unit at Teaching Hospital Kalutara with significant weight loss owing to persistent purging behaviour, with a BMI of 13.5kg/m^2, complicated with severe hypokalaemia and Indirect hyperbilirubinemia.

She was diagnosed with Anorexia Nervosa with dangerously low body weight, binge-purge pattern with Comorbid moderate depressive episode.

During this hospital stay a medical referral was done for correction of her hypokalaemia, Clinical Nutritional referral in order to optimize her nutrition, Gastroenterology referral to explore the causes of Indirect Hyperbilirubinemia along with Gastrointestinal Surgical referral in order to remove the PEG tube after proper establishment of oral feeding and was restarted on Sertraline along with Cognitive Behaviour Therapy. She regained adequate oral feeding, correction of hypokalaemia along with a satisfactory insight into her disease at the time of discharge.

Discussion

This case illustrates a chronic non-remitting course of Anorexia Nervosa in certain individuals despite optimal medication, psychological therapies and nutritional rehabilitation and in this case, it appeared refractory to the given treatment and later progressed to severe maladaptive behaviour which ultimately worsened her current condition leading to reinforcing her behaviour.

Although establishment of enteral feeding is lifesaving in malnourished individuals with Anorexia Nervosa it is advised to carefully select patients for specialized feeding techniques, as in this case via PEG tube, which can lead to misuse of feeding devices, particularly in those with obsessive compulsive traits. There is also need for continued monitoring in them which could lead to reinforce disordered eating behaviours. Literature rarely supports placement of PEG tube for management of Anorexia Nervosa; there are reported cases of placement of gastrostomy and jejunostomy to feed highly resistant anorexic patients. Placing PEG tube is also an invasive procedure which requires endoscopic guidance with placement across stomach wall. Even in those cases it should be kept in mind that the PEG tube could be a potential for abuse and conversion to other modalities of feeding – Oral or NG – should be reinstituted as soon as the acute condition subsides.

Collaboration among Psychiatrists, Nutritionists, Physicians is essential to ensure the safety and well-being of these patients with complex, unremitting course of Anorexia Nervosa and for their optimal management.

Conclusions

Chronic cases of Anorexia Nervosa, which does not respond to traditional therapeutic measures may pose a significant management challenge and might require novel therapeutic measures, however this should be done in consensus with the multi-disciplinary team in managing the patient. This case underlines the risks associated with PEG tube use in Psychiatric populations and the potential for such devices to be misused in line with the disorder.

Comprehensive, individualized care and close follow-up are key in managing these patients and mitigating harm.

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