HYPERAMYLASEMIA IN AN ATYPICAL ANOREXIA NERVOSA CASE

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Background:

Eating disorders such as atypical anorexia nervosa (AAN) may present with multiple biochemical abnormalities including anaemia, raised blood cholesterol and low potassium levels.

When persistent vomiting is a clinical feature, mildly elevated amylase levels are sometimes seen.

However, levels as high as 690U/L are not usually found unless other pathologies are also present.

Materials and Methods:

A review of the clinical case was carried out using an electronic record database, with the patient's consent.

A literature search was performed on the *PubMed* database for an updated review on the subject.

Results:

A 13 year old female presented with significant weight loss with a **BMI of 17.56 Kg/m²**, in August 2016.

She reported intermittent abdominal pain and oesophageal reflux, and denied excessive exercising and calorie counting.

Graf 1. Evolution of her weight over time (in Kg).

Analytic evaluation showed a very high level of amylase (**690U/L**) **more than 6 times normal**, which suggested pancreatic inflammation, possibly secondary to pancreatitis.

Further referral to Gastroenterology and investigations were negative for this diagnosis and vomiting induced raised amylase (VIRA) was considered. However, at this time, there were no other features consistent with VIRA such as salivary gland enlargement.

Repeated biochemical analysis was performed during her follow-up showing a decrease but levels remain higher than the normal range (**284U/L** recorded in June 2019).

Graf 2. Evolution of amylase levels (in U/L).

Conclusions:

It is rare to find such high levels of amylase without clinical evidence of pancreatitis.

This case demonstrates that amylase can rise significantly in anorexia nervosa alone without co-morbid physical illness.

The authors' hypothesis was that **her frequent bingeing and purging behaviours** (disclosed later) contributed to overproduction of amylase.

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