Unusual association of diseases/symptoms

A crying baby: not simply infant colic

Roberta Onesimo, Valentina Giorgio, Serena Monaco, Carlo Fundarò

Department of Pediatrics, Catholic University of Sacred Heart, Rome, Italy

Correspondence to Dr Roberta Onesimo, roberta_onesimo@yahoo.it

Summary

Hypertrophic pyloric stenosis is a relatively common condition, but atypical presentations can present a diagnostic challenge. We describe the case of a 9-week-old Latin male infant who presented with a 2-day history of intermittent crying and poor feeding. He was suspected to have intussusception but was affected by and successfully treated for hypertrophic pyloric stenosis. Diagnostic tools of atypical HPS cases are discussed.

BACKGROUND

Hypertrophic pyloric stenosis (HPS) is a relatively common condition affecting 2–5 per 1000 births in the Western world.^{1 2} Epidemiological features include presentation at 6–8 weeks of age and a male predominance. Common clinical features consist of projectile non-bilious vomiting, palpable olive and hypochloraemic metabolic alkalosis. Infantile HPS occurs predominantly in white compared with black patients (2.8 : 1) and compared with Asians (5 : 1).³ Despite this, atypical presentations can be a real diagnostic challenge.

CASE PRESENTATION

A 9-week-old Latin male infant presented with a 2-day history of crying and poor feeding. The mother related that the baby intermittently cried and flexed his legs and hips. After 1–2 min of crying, he was about to relax, but then he started crying and posturing again. These episodes had been increasing over the last 24 h. Personal and family histories were negative. He was not a premature baby. He was breastfed since birth and had a clinical history of recurrent regurgitation without failure to thrive.

The infant was in good clinical condition, with no sign of dehydration. Mild abdominal distension was noted, but there were no palpable masses. One day after admission, because of poor feeding and episodic vomiting fluid therapy was started.

INVESTIGATIONS

Blood test results were negative for metabolic alkalosis, leukocytosis or electrolyte derangement. The patient was suspected of having intussusceptions or volvulus and an abdominal plain x-ray and ultrasound study were performed. No intussusception was identified but ultrasonography suggested HPS.

DIFFERENTIAL DIAGNOSIS

Possible diagnoses of an infant who has abdominal pain with or without vomiting, without other signs, include volvulus and intussusceptions.

TREATMENT

Four days after admission pyloromyotomy was performed. At the time of surgery, he had a markedly hypertrophied pylorus, without signs of ischaemic or necrotic lesions.

OUTCOME AND FOLLOW-UP

The infant was discharged home in good condition 2 days after surgery.

DISCUSSION

Infantile colic is a common problem within the first 3 months. Infants with the chief complaint of crying can present a diagnostic dilemma to the healthcare provider. Surgical problems should be excluded at first every time. The exact cause of hypertrophic pyloric stenosis is still poorly understood. Many authors put the attention on prodromal signs and independent predictors of HPS.

One published study reviewed the electrolytes of 283 infants presenting with hypertrophic pyloric stenosis and found that 88% had no electrolyte abnormalities on admission.⁴ Another study found that hypochloraemia and alkalosis were independent predictors of hypertrophic pyloric stenosis in a vomiting child.⁵

Before the 1980s, HPS diagnosis was based mainly on clinical criteria, such as palpation of the hard muscle mass of the pylorus (pyloric olive) and barium meal studies for problematic and equivocal cases. Abdominal ultrasonography has replaced barium studies in establishing the diagnosis in difficult cases of HPS and has become the diagnostic method of choice for HPS over the last 20 years. A pyloric muscle thickness greater than 3 mm was found in all cases of HPS.⁶ Ultrasound imaging had sensitivity ranging from 76% to 100% and specificity from 85% to 100%.^{6 7}

A recent study revealed that documented classic clinical symptoms and signs were notably higher in the group that proceeded to pyloromyotomy without imaging.⁸

Previous studies^{1 8} have already suggested that the typical features of HPS have decreased in frequency over time. Our patient presented with features that were so typical of intussusception that this was the primary clinical condition to be excluded. The infant presented with an

atypical clinical onset because of the absence of vomiting, pyloric olive, hypochloraemia and alkalosis. Abdominal ultrasound led to prompt diagnosis and treatment, reducing morbidity and preventing the appearance of classical symptoms.

Learning points

- ▶ Clinicians treating infants thus need to be alert to non-classical presentations of hypertrophic pyloric stenosis (HPS) and should consider this condition in the differential diagnosis of all infants presenting with excessive crying even without vomiting, particularly those less than 3 months of age.
- ▶ Lack of hypochloraemia and/or alkalosis could be justified by atypical onset of HPS or early fluid challenge.
- ▶ Diagnostic ultrasound-imaging is essential for the diagnosis of atypical HPS.

Competing interests None.

Patient consent Obtained.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Onesimo R, Giorgio V, Monaco S, Fundarò C. A crying baby: not simply infant colic. *BMJ Case Reports* 2012;10.1136/bcr-2012-006544, Published XXX

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