CASE REPORT

Congenital Hypertrophic Pyloric Stenosis A Case at the Gunung Wenang Hospital Manado - North Sulawesi Indonesia

by

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Abstract

On a baby girl of 4 weeks old with the diagnosis of congenital hypertrophic pyloric stenosis, an extremely rare case in our Hospital, surgical operation was done using the Fredet Ramsted method.

The main complaint was frequent vomiting. The diagnosis was based on projectile vomiting, retarded growth, constipation, moderate dehydration and was confirmed by barium meal study.

Ten days after the operation, she was discharged in a good condition.

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Introduction

Congenital hypertrophic pyloric stenosis is a condition due to hypertrophy of the longitudinal and circular muscles of the pylorus [1]. The cause of this condition is not clear yet [2]. Male infants are four times more affected by this condition than female infants [3].

This abnormality was found in preterm more, in still birth preterm infants. The symptoms occur 2 - 5 weeks after birth [4], but in 10% of cases they may begin at birth [5]. The incidence of congenital hypertrophic pyloric stenosis is 6,2 per 1000 person - per year [6].

The treatment is surgery, using the Fredet Ramstedt surgery method, which give satisfactory results [7]. A few patients could spontaneously recover, but this is extremely rare [8].

The following is a report of a case of congenital hypertrophic pyloric stenosis.

Case Report

A-four-week old Indonesian girl from Kotamobagu (North Sulawesi, Indonesia), was admitted to the Pediatric Department Gunung Wenang General Hospital, Manado North Sulawesi - Indonesia, with the main complaint of vomiting.

Seven days before admission she suffered from projectile vomiting occurring 2 - 3 times a day after every feeding. The vomit contained of the previous feeding and there was no bile or blood. Shortly after vomiting the patient looked hungry. Because of the persistent vomiting which became more frequently, the patient was then transferred to Gunung Wenang General Hospital, Manado.

She never had passed stools since 5 days before hospitalitation. Micturation was normal.

She was the second child of 2 siblings. Her parents and the other sibling were healthy. There was family history of this similar illness or any congenital abnormality. The patient was born spontaneously, with the body weight of 2800 gram.

Physical examination on admission revealed an alert child, looking ill, with a respiration rate of 28 X/minute, a pulse rate 132 X/minute, body temperature 38,3^{O}C, body weight 2,800 gram and body length 51 cm.

The major fontanel and the eye lids were sunken. The heart and lungs were within normal limits. The abdomen was flat, soft and a visible mass was not palpable, the peristalsis was normal. The liver and spleen could not be palpated. The extremities were normal so was also the genitals.

Laboratory examination :

Peripheral blood Hb 13.6 gr/dl, WBC 21,000/ul with a differential count of eosinophyls 2%, segments 82%, lymphocytes 15% and monocytes 1% ; the platelets was 240,000 / ul, urine normal. Chest and abdomen X-rays revealed no abnormalities, barium meal X-rays showed that the contrast passed the pyloric canal difficultly and leaving a small barium column distal from the obstruction (suggested pyloric stenosis).

The suspected diagnosis was hypertrophic pyloric stenosis with moderate dehydration. She was treated with : Intra venous fluid and electrolytes for rehydration treatment, Intravenous antibiotics. After rehydration treatment, she was referred to the Surgical Department where she underwent pylorotomy using Fredet Ramstedt method. Ten days after operation, the patient was discharged in a good condition.

Discussion

The diagnosis of hyperttrophic pyloric stenosis was based on : three clinical features. The dominant symptom was typically projectile and free of bile vomiting, the onset being between 2 - 3 weeks after birth, though in 10% of cases, symptoms began at birth, and rarely symptoms develop as late as 3 1/2 years of age. Initially the vomiting can be intermittent but it increases in severity and frequency until it occurs with every feed. Constipation usually develops, but early before there may be mild diarrhea, so that gastroenteritis is occasionally the initial mistaken diagnosis. The patient's nutritional status deteriorates; poor weight gain progresses to weight loss, dehydration and electrolyte imbalance.

In our case we found projectile and frequent vomiting, constipation and retarded growth/weight loss.

The diagnostic physical findings are a palpable pyloric mass and visible peristaltic waves across the epigastrium. Peristalsis proceeding from left to right towards the pylorus is particularly prominent after feeding, just before vomiting. The hypertrophic pyloric mucles are felt as a mobile, non tender, firm, olive shaped mass in the epigastrium or right hypochondrium. The mass may be missed early in the course of the disease. Once a pyloric mass is felt, the diagnosis is made needing no further investigations.

In our case we did not found any visible and palpable mass, therefore we made the barium meal X-rays.

In approximately 10% of infants with pyloric stenosis, the tumor is not palpable, thus needing radiological examination to reveal the elongated, narrowed pyloric canal [2]. Conservative therapy is not reccomended, because it takes quite a long time and the complication could be fatal for the infant [2].

Recently some studies suggested that the best treatment is Fredet Ramstedt pylorotomy, and the results are satisfactory.

In our case, the pyloric stenosis was corrected by using Fredet Ramstedt Pylorotomy and was successful.

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