

Paraesophageal hernia in childhood



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Konstantin Koulopoulos*, Spiridon Kostelestos^o, Georgios Christopoulos - Geroulanos**, Georgios Mauridis**, Nikoleta Kalantzi***, Nicolas Condilis***, Christos Plataras*, Kyriakos Skanavis*, Dimitrios Kerammidas**

*Department of Pediatric Surgery and ***Familiar Medicine, General Hospital of Nikaia "Saint Panteleimon", - Piraeus, Greece;

**Department of Pediatric Surgery, Child Hospital "Aghia Sofia", Athens, Greece.

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AIM OF THE STUDY: *Paraesophageal hernia is a particularly rare condition in childhood. Sometimes it is possible to have an asymptomatic course and to be discovered incidentally. Anyway there are no more than 20 reported cases of which only two are well studied and documented to be real paraesophageal hernias.*

CASE REPORT: *Patients were all over 4 years old except for one little patient which was 18 months old, the only infant reported with this condition. On the contrary it is the most common postoperative complication of Nissen fundoplication, which is the most commonly performed, surgical technique for the correction of gastroesophageal reflux in children.*

CONCLUSIONS: *The Authors believe that the presentation of this case with all its special characteristics will improve knowledge about this rare entity and add information about its treatment and surgical correction that are useful for all doctors that care children.*

KEY WORDS: Child, Paraesophageal hernia.

Case report

Our patient was a female infant 18 months old. She had recurrent episodes of lung infections since birth that were treated as simple lung infections with the usual treatment. However the frequent recurrences and the severity of the last infection led the patients' parents to visit the Pediatric Unit of our Hospital. The x-ray showed air-fluid levels in the right hemithorax. Then the child was transferred to our department for evaluation. The blood test results showed that there was an infectious process going on. We decided to proceed to a better and more thorough investigation with a new x-ray and a CT-tomography.

During the examination a diagnosis of paraesophageal hernia which would be responsible for the air-fluid level in the right semithorax seemed quite possible. So we gave a small amount of barium which showed the protrusion of the dome of the stomach into the right hemithorax.

We decided to perform a gastroscopy, which confirmed the diagnosis. After complete treatment of the last lung infection, which was due just like all the past ones to aspiration, we made the decision to operate the child and to perform anti-reflux procedure.

The performed anti-reflux procedure was the Nissen fundoplication with suture ligation of the diaphragmatic crura. Fundoplication was stabilized on the esophagus whereas the suture ligation was on the rear side. The child had an excellent postoperative course and there were no significant functional problems, such as those that are occasionally reported after a Nissen fundoplication.

Discussion

Our patient represents the youngest among the two better studied cases of all twenty children, ever reported to suffer from paraesophageal hernia, during the last 15 years. On the same time it is the youngest child ever that was submitted to Nissen fundoplication.

Paraesophageal hernia is obviously a disease of the adult patient representing 10% of esophageal hiatus hernias. Cases on childhood are of unknown aetiology. There is

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For correspondence: Konstantin Koulopoulos, MD Kleious 30, 15561 Cholongos, Greece (e-mail: thkoul@yahoo.gr).

however a hypothesis of congenital aetiology that has been accepted widely in literature. There is also reported a family with familial distribution of the disease. The disease may also run an asymptomatic course. Our patient had an early appearance and a very severe course. The hernia content in our patient was solely the dome of the stomach, but there are cases where the whole stomach and a portion of the long intestine bulge through the hiatus. We believe that Nissen fundoplication even though difficult to perform, due to small dimensions and close relations of the child anatomy, when properly performed has good result and an excellent postoperative course. Nissen fundoplication is widely considered, through experience by adult patients, to be the method with the best long term results. This is quite important for a child that has a long life expectancy. This procedure is well tolerated by little patients, without significant functional postoperative problems, the most common of all being dysphagia. These problems usually subside after 4-8 weeks. These are usually attributed to the widely accepted postoperative dysmotility of the oesophagus.

Therefore even though rare this disease entity should be considered when making the differential diagnosis of lung infections and regurgitations during infancy and child age. The child should be operated and have an antireflux procedure performed because of its long life expectancy.

Surgical correction assures a better quality of life and a better social and psychological development of the child and therefore it is the treatment of choice. On the contrary conservative treatment with dietary modifications and medications, such as omeprazole, has certain disadvantages such as its long term of duration and drug side effects. In addition when the disease doesn't respond well to conservative treatment there is always the danger of malignant metaplasia of esophageal epithelium (Barrett oesophagus) because of esophagitis.

Riassunto

L'ernia paraesofagea è una condizione patologica parti-

colarmente rara all'età pediatrica. Certe volte poi può avere un decorso evolutivo completamente asintomatico e la sua scoperta può essere del tutto accidentale. Comunque dalla nostra ricerca bibliografica non risultano più di 20 casi riportati e di questi solamente 2 sono stati studiati bene e documentati quali casi di ernia paraesofagea vera.

CASO CLINICO: La particolarità del nostro caso sta nel fatto che il paziente da noi studiato e trattato era dell'età di 18 mesi contrariamente a tutti i casi riportati nella esistente bibliografia che avevano un'età dai 4 anni in su. D'altra parte l'ernia paraesofagea rappresenta una delle più comuni complicazioni postoperatorie della fundoplicatio secondo Nissen che a sua volta è la più comunemente utilizzata, tecnica chirurgica per la correzione del reflusso gastroesofageo nei bambini.

CONCLUSIONI: Pensiamo che la presentazione del nostro case report con tutte le sue caratteristiche speciali porterà ad un aumento delle conoscenze su questa rara entità patologica ed aggiungerà delle informazioni utili circa il trattamento e la sua correzione chirurgica al bagaglio cognitivo di ogni Medico che si occupa di pazienti d'età pediatrica.

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