Hernia of the posterior lamina of the rectus abdominis muscle sheath:
report of a case

S. Gangi, T. Sparacino, M. Furci, F. Basile

Università degli Studi di Catania
Dipartimento di Chirurgia - Sezione di Chirurgia Generale ed Oncologica
Direttore: Prof. Francesco Basile

Abstract

A case of hernia of the posterior lamina of the rectus abdominis muscle sheath in a 30 years old female, six months pregnant, is reported.

The symptomatology was almost exclusively characterized by a persistent abdominal pain, located in the right costal margin at the intersection with the right adsternal line and aggravated by changes in position and by increases of intra-abdominal pressure. No bulge or specific hernial defect was clinically appreciable.

The key to diagnosis, in this case, was an echography of soft tissues performed in the area where the pain was greater: with the patient in orthostatic position, it was possible to demonstrate a defect in the posterior sheath of the rectus abdominis muscle, that, increasing the intra-abdominal pressure, let pass preperitoneal fat between sheath and muscle.

Both the predisposing (anatomic and clinical) factors and the provocateurs ones, probably involved in the genesis of this peculiar case, are discussed.

Key words: Interparietal hernia, abdominal wall.

Introduction

In this article is described a peculiar clinical picture which we have diagnosed as a hernia of the posterior lamina of the rectus abdominis muscle sheath.

Careful literature search failed to reveal any previous reports of this pathology.

Anamnestic, clinical and ultrasonographic features of this case are presented, while waiting for its evolution in order to indentify the most suitable therapeutical stratgey.

Report of a case

Our patient is a 30-year-old female, six months pregnant, with both familial and personal history negative for previous pathologies (such as diabetes mellitus, hypertension, obesity, etc.).

About two weeks before our initial evaluation, she felt a sudden sharp abdominal pain, while passing from the clinostatic position to the orthostatic one; according to what the patient refers, this pain was exactly located in the right costal margin at the intersection with the right adsternal line, it had no relation with meals and it was not associated to fever, emesis or alvus' alterations.

This pain spontaneously ceased in about two hours, after the patient had reassumed the supine position, but afterwards it frequently appeared, until it became persi-
musculo retto di destra, nel quale, aumentando la pressione endoaddominale, si impegnava tessuto adiposo preperitoneale, posizionandosi tra guaina e muscolo.

Vengono discussi i fattori predisponenti (anatomici e clinici) e quelli determinanti probabilmente coinvolti nella etiopatogenesi di tale caso clinico.
Parole chiave: Ernia interparietale, parete addominale.

Despite extensive review of the literature, we are unable to document any previous report of a similar clinical picture.

Nevertheless, it can be possible to consider minor resistentia loci along the posterior sheath of the rectus abdominis muscle the sites where intercostal blood vessels and nerves pass through it (1).

In the case we’re discussing, the hernia probably develops into the site where the internal thoracic vessels pass through the posterior sheath of the rectus abdominis muscle, becoming superior epigastric vessels. Therefore this peculiar clinical picture could be defined as interparietal hernia, since it does not penetrate all layers of the abdominal wall (2, 3).

The etiology of this rare hernia should be attributed to a sudden increase of intra-abdominal pressure, operating on a previously extended abdominal wall, in which are dilated the orifices where neurovascular structures pass. Therefore we can identify as predisposing factors of these pathologies all those conditions, such as pregnancy, obesity or massive ascites, producing a marked distension of the abdominal wall; it can be also thought, when above-mentioned predisposing factors fail, the simple increase of intra-abdominal pressure will not be able to produce the

Discussion

Despite extensive review of the literature, we are unable to document any previous report of a similar clinical picture.

Nevertheless, it can be possible to consider minor resistentia loci along the posterior sheath of the rectus abdominis muscle the sites where intercostal blood vessels and nerves pass through it (1).

In the case we’re discussing, the hernia probably develops into the site where the internal thoracic vessels pass through the posterior sheath of the rectus abdominis muscle, becoming superior epigastric vessels. Therefore this peculiar clinical picture could be defined as interparietal hernia, since it does not penetrate all layers of the abdominal wall (2, 3).

The etiology of this rare hernia should be attributed to a sudden increase of intra-abdominal pressure, operating on a previously extended abdominal wall, in which are dilated the orifices where neurovascular structures pass. Therefore we can identify as predisposing factors of these pathologies all those conditions, such as pregnancy, obesity or massive ascites, producing a marked distension of the abdominal wall; it can be also thought, when above-mentioned predisposing factors fail, the simple increase of intra-abdominal pressure will not be able to produce the
same hernia; nevertheless, if it does not occur, a surgical approach may be necessary. As we haven't found any previous report of this pathology, as pregnancy is among predisposing factor the most transitory and the patient is still pregnant, we have not undertaken any surgical treatment. For the present we just emphasize the importance of ultrasonography in the diagnosis of this rare hernia, as well as in the diagnosis of unexplained abdominal wall pain.

References


Autore corrispondente:

Dott. Santi GANGI
Via Canfora, 16
95128 CATANIA
Tel.: 095/553495