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Diagnosis and Treatment of Fitz-Hugh-Curtis Syndrome: Review of Current Literature

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INTRODUCTION

Fitz-Hugh-Curtis syndrome (FHCFS) is a chronic inflammatory disease that affects the peritoneal and hepatic surfaces, causing the formation of adhesions and fibrous bands between these structures. This condition occurs as a result of prior infection by sexually transmitted pathogens, such as Chlamydia trachomatis or Neisseria gonorrhoeae, which provoke an inflammatory response at the peritoneal level and subsequently affect the hepatic surface.1

EPIDEMIOLOGY

The epidemiology of Fitz-Hugh-Curtis syndrome (FHCFS) is complex and varies according to the population studied. HCFS is considered to be a rare disease and its overall incidence is estimated to be approximately 1 to 2 cases per 100,000 population per year.1

HCFS predominantly affects young women of reproductive age, with the majority of cases diagnosed in women between 20 and 40 years of age. The disease is more common in low- and middle-income countries, where sexually transmitted infections are more prevalent and access to medical care is limited.2

A strong association has been found between Chlamydia trachomatis infection and HCFS, and it has been suggested that this bacterium may be an important trigger in the pathogenesis of the disease. The prevalence of Chlamydia trachomatis infection is highest in young sexually active women, and it is estimated that up to 70% of cases of HCFS are associated with this infection.2

HCFS is a rare disease that predominantly affects young women of reproductive age, with a higher incidence in low- and middle-income countries. Chlamydia trachomatis infection is an important trigger in the pathogenesis of the disease, and it is estimated that most cases of HCFS are associated with this infection.3

ETIOLOGY

The etiology of Fitz-Hugh-Curtis syndrome (FHCFS) is related to previous infection with sexually transmitted pathogens, such as Chlamydia trachomatis or Neisseria gonorrhoeae, which can spread through the genital tract and provoke an inflammatory response in the peritoneal cavity.3

Genital infection occurs by transmission of microorganisms through sexual contact, leading to colonization and subsequent inflammation of the upper genital tract. Inflammation may spread to the peritoneal cavity through migration of inflammatory cells and bacteria through the fallopian tubes or by discharge of pus into the abdominal cavity.3,4

The inflammatory response in the peritoneal cavity results from the activation of inflammatory cells and the release of proinflammatory cytokines. These substances can lead to the formation of scar tissue and adhesions between abdominal organs, which can result in symptoms such as abdominal pain, nausea and vomiting.4,5

In addition, it has been proposed that certain host factors, such as altered immunity or genetic susceptibility, may contribute to the occurrence and severity of HCFS. Studies have shown that the presence of certain genetic variants may increase the risk of developing inflammatory diseases, including HCFS.5

The etiology of HCFS is related to previous infection with sexually transmitted pathogens that can spread through the genital tract and provoke an inflammatory response in the peritoneal cavity. The inflammation and host response can lead to scar tissue formation and adhesions between abdominal organs, which can result in clinical symptoms characteristic of HCFS.6

CLINIC

Fitz-Hugh-Curtis syndrome (FHCFS) is characterized by the presence of right upper abdominal pain, which may radiate to the right shoulder. Patients may also present with fever, nausea, vomiting and other nonspecific symptoms such as asthenia, anorexia and malaise.7

Abdominal pain is usually severe and is associated with the presence of adhesions between abdominal organs, which may cause peritoneal irritation and pain on palpation. Patients with HCFS may also present with signs of peritoneal irritation, such as pain with deep inspiration (Murphy's sign) and abdominal rigidity.8

In addition, several characteristic physical signs of HCFS have been described, including the presence of a "fiddler's bow tie" on the liver surface, which is due to the formation of fibrous adhesions in the liver capsule. The presence of small red spots on the liver surface, known as "fiddler's spots," may also be observed, which are due to congestion of blood vessels in the liver capsule.8,9

In severe cases, HCFS can lead to complications such as liver or peritoneal abscess formation, or intestinal obstruction due to adhesion formation.10

The clinical presentation of HCFS is characterized by severe right upper abdominal pain, fever, nausea and vomiting. Patients may present with signs of peritoneal irritation and characteristic physical signs such as "fiddler's bow tie" and "fiddler's spots". In severe cases, complications such as abscess formation or intestinal obstruction may occur.10

COMPLICATIONS

Fitz-Hugh-Curtis syndrome (FHCFS) can lead to a variety of complications, some of which can be serious and life-threatening.11

One of the most common complications of HCFS is the formation of adhesions between abdominal organs, which can lead to bowel obstruction and chronic pain. These adhesions can form as a result of the chronic inflammatory response and scar tissue formation in the peritoneal cavity.11

Another complication of HCFS is the formation of hepatic or peritoneal abscesses, which can cause fever, severe abdominal pain, and general malaise. Liver abscesses may require surgical or radiological drainage to prevent the spread of infection and avoid sepsis.12

In rare cases, HCFS can lead to liver rupture or liver cyst formation, which may require emergency surgery to prevent bleeding and spread of infection.13

In addition, the occurrence of other complications related to infection with sexually transmitted pathogens, such as infertility and obstetric complications in pregnant women, has been described.14

HCFS can lead to a variety of complications, including adhesion formation, hepatic or peritoneal abscesses, liver rupture, and liver cyst formation. These complications may require medical and surgical treatment, and in some cases may be life-threatening.14

DIAGNOSIS

The diagnosis of Fitz-Hugh-Curtis syndrome (FHCFS) is based on a combination of the clinical presentation, physical examination, medical history and the results of complementary tests.15

On physical examination, signs of peritoneal irritation may be found, such as pain on deep palpation in the right upper quadrant of the abdomen, pain with deep inspiration (Murphy's sign), abdominal rigidity and muscle guarding. Physical signs characteristic of HCFS, such as "fiddler's bow tie" on the hepatic surface and "fiddler's spots" on the liver capsule, may also be observed.15

The patient's medical history, including the presence of sexually transmitted infections and exposure to risk factors, such as intravenous drug use, are also important for the diagnosis of HCFS.15

Additional tests that can aid in the diagnosis of HCFS include imaging studies, such as abdominal ultrasound and computed tomography (CT), which can reveal the presence of adhesions between abdominal organs, peritoneal inflammation and the presence of hepatic or peritoneal abscesses.15

In addition, serological testing can be performed to detect the presence of sexually transmitted infections, such as syphilis and chlamydia, which are the pathogens most commonly associated with HCFS.15

The diagnosis of HCFS is based on a combination of clinical findings, physical examination, medical history and the results of complementary tests, such as abdominal ultrasound, CT scan and serological tests for sexually transmitted infections.15

TREATMENT

The treatment of Fitz-Hugh-Curtis syndrome (FHCFS) depends on the severity of the disease and the presence or absence of complications. The main goal of treatment is to control infection and reduce peritoneal inflammation, prevent the formation of adhesions and abscesses, and relieve the patient's symptoms.16

Initial medical treatment of HCFS includes administration of broad-spectrum antibiotics to control the infection, such as ceftriaxone and doxycycline. In severe cases or in the presence of complications, hospitalization of the patient may be required for intravenous antibiotics and surgical or radiological drainage of abscesses.16

In addition to antibiotic treatment, analgesics may be administered to relieve abdominal pain and muscle spasms,

and bed rest and local heat application may be recommended to reduce peritoneal inflammation.16

In cases of recurrent or refractory HCFS to medical treatment, laparoscopic surgery may be considered for removal of adhesions and correction of anatomical abnormalities that may be contributing to disease recurrence.16

Importantly, HCFS is associated with infection by sexually transmitted pathogens, so testing for these infections and treatment of sexual partners to prevent reinfection is recommended.17

Treatment of HCFS includes the administration of antibiotics, analgesics and supportive measures such as bed rest and the application of local heat to reduce peritoneal inflammation. In severe cases or in the presence of complications, hospitalization of the patient and surgical or radiological drainage of abscesses may be necessary. In addition, testing for sexually transmitted infections and treatment of sexual partners to prevent reinfection is recommended.17

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