

Surgical Pathology During Pregnancy: Acute Cholecystitis, A Common Problem

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ABSTRACT

Introduction: If left untreated, acute cholecystitis, a common illness that can develop during pregnancy, can cause major consequences for both the mother and fetus. It might be difficult to diagnose acute cholecystitis during pregnancy since its symptoms can resemble those of other abdominal disorders. For the first time in the history of the United States, the first time in the history of the United States.

The production of gallstones and consequent inflammation are thought to be caused by hormonal changes, altered gallbladder function, and reduced gallbladder motility, which are all factors in the pathophysiology of acute cholecystitis during pregnancy. The clinical history, symptoms, physical examination, and diagnostic procedures, such as abdominal ultrasonography and assessment of bilirubin and liver enzyme levels, are used to make the diagnosis of acute cholecystitis during pregnancy. The severity of the symptoms and the woman's gestational age determine how to treat acute cholecystitis during pregnancy.

Cholecystectomy, a laparoscopic procedure to remove the gallbladder, is typically the most successful therapy for acute cholecystitis during pregnancy. Yet, because of the physiological and structural changes in the pregnant woman's body, surgery may be more difficult. As a result, each patient's therapy should be customized, and the risks and benefits of surgery should be carefully weighed. The prognosis of acute cholecystitis during pregnancy is favourable if appropriately detected and treated. Pregnant women should be aware of symptoms and seek medical assistance right away if they think they may have acute cholecystitis. Most pregnant women may have a safe pregnancy and birth with prompt diagnosis and treatment.

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INTRODUCTION

Acute cholecystitis is a rapid gallbladder inflammation that is characterized by intense stomach discomfort, fever, and other symptoms that might vary depending on the severity of the infection. Acute cholecystitis can occasionally be brought on by gallstones in the gallbladder, but it can also be brought on by infections, obstructions, or other factors. (1)

The third trimester of pregnancy is when acute cholecystitis in pregnancy most frequently manifests medically. One of the most frequent problems during pregnancy, acute cholecystitis is thought to affect up to 4% of pregnant women. (2)

Because of the dangers it presents to both the mother and the fetus, this disease is particularly concerning. Acute cholecystitis can result in a number of dangerous consequences, such as gallbladder perforation, abscess development, and sepsis, if it is not treated effectively.

Moreover, it may result in preterm labor, fetal development restriction, or even stillbirth. (2)

As a result of these dangers, it's crucial for doctors who treat pregnant patients to be familiar with the signs of acute cholecystitis and to include it in their differential diagnosis. Moreover, precautions should be made to avoid gallstones during pregnancy and to promptly diagnose and treat acute cholecystitis in order to reduce problems and enhance pregnancy outcomes.

THEORY

Although there are some significant distinctions, the pathophysiology of acute cholecystitis in pregnancy is comparable to that of acute cholecystitis in the general population. (3)

A bile duct blockage, which prevents the flow of bile from the gallbladder into the small intestine, is the most common

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cause of acute cholecystitis. Gallstones, gallbladder wall inflammation, and infection are all potential causes of this obstruction. Inflammation, discomfort, and other symptoms are brought on by the buildup of bile in the gallbladder as a result of bile duct blockage. (1)

Pregnancy-related hormonal and physiological changes can raise the chance of gallstone development, which in turn can raise the risk of acute cholecystitis. Estrogen levels rise during pregnancy, which can lead to higher cholesterol synthesis and slower bile excretion. The gallbladder may also experience pressure from the expanding uterus, which may impede bile flow and increase the risk of gallstone development. (4)

In some circumstances, acute cholecystitis during pregnancy may be linked to a bacterial infection, which may be brought on by the expectant mother's weakened immune system. (3)

Acute cholecystitis in pregnancy is an inflammation of the gallbladder that can be brought on by bacterial infection or gallstones blocking the bile ducts. Due to symptoms that are similar to those of other obstetric diseases, this illness is most prevalent during the third trimester of pregnancy and can be challenging to diagnose. (1)

Acute cholecystitis in pregnancy is a very uncommon but potentially dangerous illness, with an incidence of 0.05% to 0.2%. Older age, obesity, a family history of gallstones, and repeated pregnancies are risk factors. (5)

Clinical assessment, laboratory test results, and imaging findings are used to diagnose acute cholecystitis in pregnancy. Symptoms include right upper quadrant stomach discomfort, nausea, vomiting, fever, and chills. Alkaline phosphatase, liver enzymes, and bilirubin levels may all rise, according to laboratory tests. Gallstones, gallbladder wall thickening, and distention are some imaging findings that may indicate gallbladder inflammation. (6)

Acute cholecystitis in pregnancy is treated by controlling symptoms, dealing with side effects, and treating the underlying problem. The most effective surgical therapy for acute cholecystitis in pregnancy is laparoscopic cholecystectomy. However, in other circumstances, conservative treatment options, including as antibiotics, analgesics, and dietary changes, may be considered. (7)

DISCUSSION AND CONCLUSION

Due to the characteristics of gestation, acute cholecystitis in pregnancy is a disorder that can be challenging to detect and treat. Because the symptoms might mimic those of other obstetric illnesses like preeclampsia or appendicitis, it can take longer to diagnose and treat this problem. As a result, it's critical for medical professionals who treat pregnant patients to be aware of the signs and symptoms of acute cholecystitis and to include this illness in their differential diagnosis. (1)

When a pregnant patient suffers acute cholecystitis, surgery with laparoscopic cholecystectomy is recommended since it is safer to do during pregnancy and has less risks than open surgery. Nonetheless, the date of gestation, the likelihood of

problems, and the patient's wishes must all be taken into account when deciding whether to conduct surgery. There are benefits to the laparoscopic method over the open method for cholecystectomy during pregnancy, including (8):

Reduced postoperative discomfort: Since laparoscopic cholecystectomy uses smaller incisions and does not require a major incision in the abdominal wall, it has less postoperative discomfort than open cholecystectomy.

Reduced blood loss: Because less surrounding tissues and organs are moved during laparoscopic cholecystectomy, less blood is lost compared to open cholecystectomy.

Less time spent in the hospital: Because laparoscopic cholecystectomy is less intrusive than open cholecystectomy, patients who have the treatment often spend less time in the hospital.

Reduced risk of postoperative problems: Compared to open cholecystectomy, laparoscopic cholecystectomy carries a decreased risk of postoperative complications include surgical wound infection, incisional hernia, and abdominal adhesions.

Improved aesthetics: Laparoscopic cholecystectomy has superior aesthetics than open cholecystectomy because it leaves less abdominal scars and smaller incisions.

Notably, even though laparoscopic cholecystectomy provides many benefits, not all patients are candidates for surgery. The surgeon should decide whether to do an open or laparoscopic cholecystectomy after assessing each patient's health and the difficulty of the procedure. The preferred procedure for the majority of pregnant individuals with acute cholecystitis is laparoscopic cholecystectomy. (8)

Moreover, untreated acute cholecystitis during pregnancy can have harmful effects on both the mother and fetus. Gallbladder perforation, abscess development, and sepsis are examples of complications. Acute cholecystitis can cause stillbirth, fetal development retardation, and premature labor in extreme instances. (9)

To prevent difficulties and enhance pregnancy outcomes, it is crucial to diagnose and treat acute cholecystitis in pregnancy as soon as possible. In addition, measures including keeping a balanced diet and limiting weight gain should be followed to avoid the development of gallstones during pregnancy. (9) Regarding the selection of a course of therapy, it's crucial to consider the patient's needs and preferences. While surgery is the most effective therapy for acute cholecystitis, conservative measures may be used instead if doing so would put the mother or fetus at danger. In addition to dietary changes to lessen the gallbladder's burden, conservative therapy may include antibiotics and painkillers to ease symptoms. (10)

In conclusion, acute cholecystitis during pregnancy is a rather frequent illness that, if adequately handled, might result in major consequences for both the mother and fetus. It might be challenging to diagnose acute cholecystitis in pregnancy since its symptoms can resemble those of other abdominal disorders. As a result, it's critical for clinicians to think about

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acute cholecystitis while treating pregnant patients who present with stomach symptoms.

Acute cholecystitis in pregnancy is diagnosed based on the patient's medical history, symptoms, physical examination, and diagnostic procedures such as abdominal ultrasound and testing for bilirubin and liver enzymes. Depending on the woman's gestational age and the severity of her symptoms, acute cholecystitis during pregnancy must be treated.

In general, the most successful therapy for acute cholecystitis in pregnancy is laparoscopic surgery to remove the gallbladder (cholecystectomy). Yet, because of the physiological and structural changes in the pregnant woman's body, surgery may be more difficult. Hence, it is crucial that each patient's therapy be customized and that the risks and benefits of surgery be properly weighed.

If detected and treated correctly, acute cholecystitis in pregnancy generally has a fair prognosis. Pregnant women should keep an eye out for symptoms and seek medical help right away if they think they may have acute cholecystitis. Most pregnant women may have a safe pregnancy and birth with prompt diagnosis and treatment.

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