

CASE REPORT ΕΝΔΙΑΦΕΡΟΥΣΑ ΠΕΡΙΠΤΩΣΗ

Post-cholecystectomy syndrome in pregnancy due to a long cystic stump

Hepatobiliary complications are common during pregnancy, and may have serious sequelae, depending on the severity. There is not yet a common agreement on the optimal time for gallbladder surgery, considering the overall morbidity of pregnancy. This is a case report of a pregnant woman with a history of laparoscopic cholecystectomy 1.5 years earlier, who was admitted during the second trimester of pregnancy because of biliary colic and elevation in the level of liver enzymes. Examination led to the diagnosis of post-cholecystectomy syndrome (PCS) due to a cystic duct remnant which was revealed on radiological evaluation. During her hospitalization she was managed conservatively and was discharged uneventfully. Cystic duct remnant is a rare cause of PCS that can be managed safely with a conservative approach during pregnancy, leaving surgery until the post-gestational period.

Post-cholecystectomy syndrome (PCS), which is defined as the persistence of gastrointestinal symptoms, such as right upper quadrant pain, bloating, etc., was first described in 1947 by Womack and Crider. The symptoms may start in the days following the operation, or may occur years after cholecystectomy.¹ Gallstone complications, including as acute cholecystitis, pancreatitis, acute cholangitis and biliary colic are the second most common non-obstetrical cause, after appendicitis, of acute abdomen during pregnancy.² Physiological and hormonal changes increase the risk of gallstone formation during pregnancy.³ There is an ongoing debate about the management of symptomatic biliary colic during pregnancy; whether to choose the conservative approach and to reserve surgery for treatment failure, or to perform the operation during the second trimester as the first choice of treatment.⁴ Recent literature reports devastating results with higher rates of morbidity in the case of failure of conservative management.⁵

CASE PRESENTATION

A pregnant woman aged 33 years, presented at the emergency department at 20 weeks of gestation with right upper quadrant with a positive Murphy's sign. She had a history of laparoscopic cholecystectomy 1.5 years previously in our department because of cholelithiasis, and she had three previous births by caesarian section (CS). On admission, her laboratory tests revealed high blood levels of cholestatic enzymes, including alkaline phosphatase (ALP): 251 IU/L, and gamma glutamyl transferase (GGT): 130 IU/L.

Abdominal ultrasonography (U/S) detected a cystic duct remnant containing multiple microcalculi. The liver texture and the intra-extra hepatic biliary duct had a normal appearance. Magnetic resonance cholangiopancreatography (MRCP) revealed a long cystic stump with multiple microcalculi and sludge appearance, connected with the common bile duct, which was interpreted as a cystic-duct remnant. There was also minimal dilatation in the intra-extra hepatic biliary system (fig. 1).

Based on these findings, we decided to monitor the patient

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Σύνδρομο μετά χολοκυστεκτομή
σε κύηση λόγω μακρού κυστικού
κολοβώματος

Περίληψη στο τέλος του άρθρου

Key words

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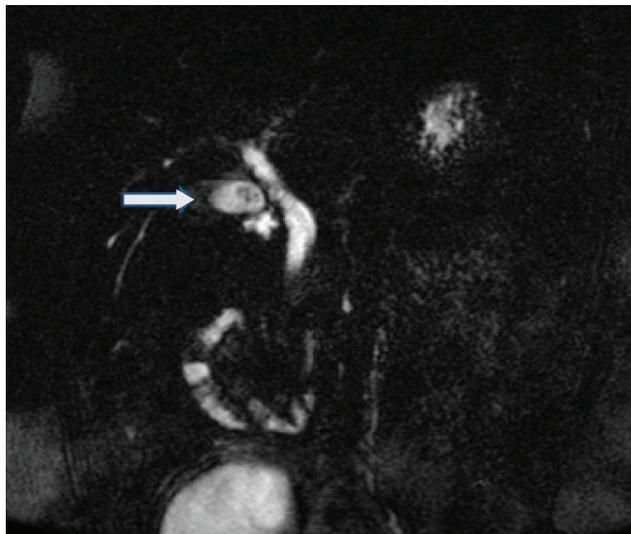


Figure 1. Cystic stump remnant in a pregnant 33-year-old woman with post-cholecystectomy syndrome. Magnetic resonance cholangiopancreatography (MRCP) showing the appearance of the common bile duct (tip of the arrow shows the cystic stump remnant).

under conservative management. Her clinical status improved in the following days, and we planned to postpone the operation until the post-gestational period. She was discharged uneventfully with no complications, and has been followed during her outpatient antenatal visits until the time of her delivery.

DISCUSSION

Long cystic duct remnant is a rare cause of PCS. One of the main reasons for this is incomplete dissection at the time of cholecystectomy. The importance of the critical angle of the hepatocystic triangle during cholecystectomy is emphasized here. The surgeon performing the cholecystectomy should visualize the junction of the cystic and common bile ducts clearly, along with the cystic artery, in order to avoid possible iatrogenic injuries. In addition, whether or not the surgeon is experienced in hepatobiliary surgery, he or she must be cautious during the dissection, since there are multiple variations of biliary and vascular anatomy in

this region. Ligating the cystic duct leaving a long stump behind may lead to the formation, as in this case, of a so-called long duct remnant, which can cause persistence of the pre-existing gallbladder symptoms.⁶ Incomplete dissection of vital structures during cholecystectomy may be due to the inadequate knowledge and experience of the surgeon in the field of laparoscopic surgery. It is well known that, compared with open surgery, complications such as biliary injury and stricture are more common in laparoscopic surgery because of inadequate visualization of the anatomic structures.⁷ In addition, it is possible that adhesions following cholecystitis, cholangitis or previous surgery can make the procedure more challenging for the surgeon. In such a case, it would be safer to convert to open surgery or to get help from a more experienced surgeon in field of laparoscopic surgery, if possible. There is unanimous agreement on the safety of laparoscopic cholecystectomy during pregnancy, and some surgeons prefer to operate in the second trimester, taking into consideration the rate of recurrence in the conservative approach, with a decreasing rate of 92%, 64% and 44% in the first, second, and third trimesters, consecutively.⁸

Our case presented here was of PCS of pregnancy. In relevant literature we found no article referring to the clinical features and treatment options of this infrequent condition. Trusting our clinical experience, we decided on conservative management. Based on the knowledge of her laparoscopic cholecystectomy and three previous CS deliveries, and with a history of gestational hypertension, at 20+3 weeks of pregnancy we planned to postpone the surgery for the post-pregnancy period, considering possible morbidity of the operation.

During both open and laparoscopic surgery, meticulous dissection and identification of the gallbladder and cystic duct junction in the hepatocystic triangle is of utmost importance during cholecystectomy. In addition to possible biliary injury, insufficient visualization of the common bile duct junction may result in leaving behind a long remnant cystic stump, leading to the development of PCS in the future.

ΠΕΡΙΛΗΨΗ

Σύνδρομο μετά χολοκυστεκτομή σε κύηση λόγω μακρού κυστικού κολοβώματος

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Οι επιπλοκές ήπατος και χοληφόρων είναι συχνές κατά τη διάρκεια της εγκυμοσύνης και μπορεί να έχουν ακόμη και

σοβαρές συνέπειες. Δεν υπάρχει κοινή συμφωνία για τον χρόνο τέλεσης της χειρουργικής επέμβασης, λαμβάνοντας υπ' όψη τη συνολική νοσηρότητα της κύησης. Αυτή η περίπτωση αφορά στην κλινική πορεία μιας εγκύου 20 εβδομάδων με ιστορικό λαπαροσκοπικής χολοκυστεκτομής πριν από 1,5 έτος, που είχε προσέλθει κατά το δεύτερο τρίμηνο της εγκυμοσύνης λόγω κωλικού χοληφόρων και αύξησης των ηπατικών ενζύμων. Έπειτα από μερικές λεπτομερείς εξετάσεις, τέθηκε η διάγνωση του συνδρόμου μετά τη χολοκυστεκτομή λόγω υπολείμματος κυστικού κολοβώματος που αποκαλύφθηκε ακτινολογικά. Η αντιμετώπιση έγινε συντηρητικά. Το κολόβωμα του κυστικού πόρου είναι μια σπάνια αιτία του συνδρόμου μετά από χολοκυστεκτομή, η οποία στη διάρκεια της κύησης αντιμετωπίζεται συντηρητικά και μετά το πέρας αυτής χειρουργικά.

Λέξεις ευρητηρίου: Ηπατοκυστικό τρίγωνο, Κωλικός χοληφόρων, Κύηση, Μακρύ κυστικό κολόβωμα, Σύνδρομο μετά χολοκυστεκτομή

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