One case of transposition of viscera and hepatic and extrahepatic bile duct stones

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Abstract: This article offers a case report of transposition of viscera and hepatic and extrahepatic bile duct stones. [Jiang-Kun Jia, Huan-Zhou Xue, Quan Shen. **One case of transposition of viscera and hepatic and extrahepatic bile duct stones**. *Life Sci J* 2013;10(3):1522-1523] (ISSN:1097-8135). http://www.lifesciencesite.com. 228

Keywords: transposition; viscera; hepatic; extrahepatic bile duct stones

1. Case Report (Cinical Material)

A female patient, aged forty-two, was admitted to our hospital for intermittent epigastrium pain for about 2 months. The pain occurred 2 months ago and were more severe at night without nausea and vomit. Before entering to our hospital, color doppler ultrasound examination made in a local hospital suggested the patient had transposition of viscera including liver, spleen, pancreas, kidney with stones in the common bile duct, right and left hepatic duct and partial intrahepatic bile duct. Moreover, gastroscope showed chronic superficial gastritis with transposition of the stomach. After treatment with acid supression and liver protection etc, no obvious improvement occurred. Hence the patient came and was admitted to our hospital for hepatic and extrahepatic bile duct stones and transposition of viscera diagnosed by the clinic. The patient denied history of food and drug allergy, surgical trauma or familial hereditary deisease. Physical examination showed the abdomen was flat and soft, left upper quadrant tenderness without muscle tension or rebound tenderness. Expect for this, physical examination was esentially normal. No evident abnormality was discovered by blood routine or tumor markers tests. (60 u ALT, total bilirubin, 28 umol/l) Levocardia did not affect the the heart function detected by electrocardiogram. Color ultrasound and MRCP both pointed out transposition of viscera and hepatic and extrahepatic bile duct stones. Surgical incision was made through the left costal margin and gradually went into the enterocoelia. As seen in picture 1, the liver spleen pancreas and stomach completely translocated, extrahepatic biliary ducts dilated and gallbladder ampulla twisted. Cholecystectomy and choledocholithiasis plus T-tube drainage were performed on the patient followed by choledochoscope to probe stones in intrahepatic bile duct. After repeated washing and calculus removing, the abdomen was closed step by step. The surgical processed well and the patient recovered uneventfully.

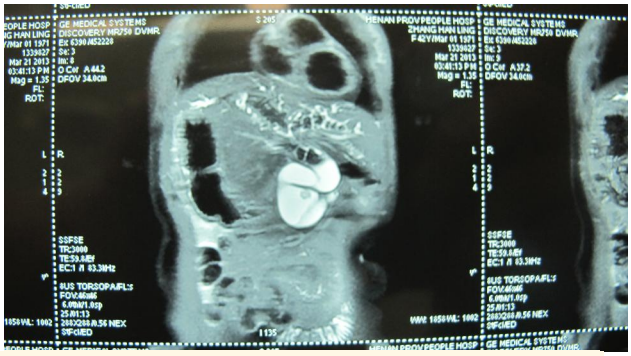

Figure 1 situs inversus viscerum, left heart, liver and bile duct stones.

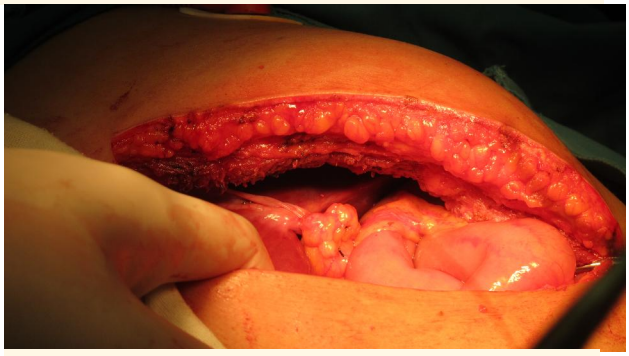

Figure 2 incision under left rib edge situs inversus viscerum

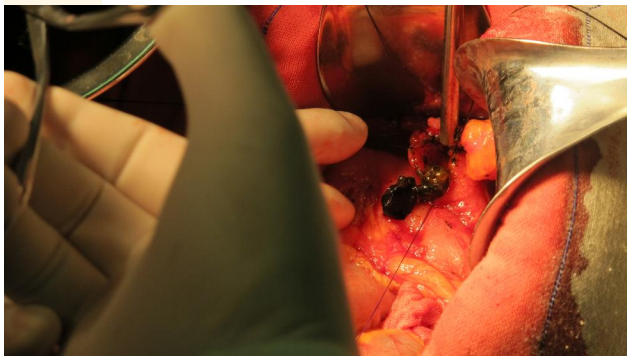

Figure 3 situs inversus viscerum dilation, common bile duct stones

2. Discussion

Situs inversus is a kind of congenital malformation caused by internal organ dysplasia during embryotic period.It is characterized by viscera in chest and abdomen locating in the mirror direction relative to the centre line. Clinically, the condition of visceral transposition can be divided into complete or partial. In complete visceral transposition, organs in chest and abdomen are all mirror imaged but such case is pretty rare. In partial visceral tranposition, only certain viscera is reversed and is usually associated with other complex abnormalities. In situs inversus, the compltete viscera transposition accounts for 86% and the partial accounts for 14%. According to other reports, the incidence of situs inversus for the neonatal with hereditary tendency is 1/5000-1/10000. So far, no definite theories can explain the cause of this phenomenon. It is generally believed that visceral transposition occurs in the third to eighth week during embryonic development. In the initial or early stage of embryo, the abnormal rotation of cilia or parential chromosome aberration or gene mutation can lead to the happening of this disease. There are mainly four theories based to explain the formation of visceral transposition. All organs transposition theory believes that the position disordering of progenitors of viscera during embryo period causes viseral transposition. Uneven heat theory believes local high temperature of embryo leads to the inversion of organs. Twins theory is based on observing the frequency of visceral transposition among twins. Embryo rotation highlights the rotation of embryo during development leads to the disease. In 1996, Sato et al first described a case of visceral transposition with hepatolith. Here, we reported a case suffered hepatic and extrahepatic bile duct stones with complete visceral transposotion in abdomen but viscera in chest were normal. Visceral transposition is rare clinically and the congenital abnormal anatomy brings difficulty to diagnosis and operation. Even the performer stands in the left of the operating table, there are still difficulties met in the process of operation, expecially when such patients have blood vessel variation. To ensure the success of such operation, the performer must choose the right surgical incision and the appropiate surgical pattern exactly according to the imaging examination previously.

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