Research Paper Medical Sciences

Tunnel for Ligamentum Teres: A Rare Variation of the Liver Seen in 2 Cadaveric Livers A case Report

DR.GOKUL KRISHNA REDDY NUNE	DEPT. OF ANATOMY, KALINGA INSTITUTE OF MEDICAL SCIENCES, BHUBANESWAR, ODISHA INDIA
DR.SMRUTI REKHA MOHANTY	DEPT. OF ANATOMY, KALINGA INSTITUTE OF MEDICAL SCIENCES, BHUBANESWAR, ODISHA INDIA
DR.MINATI PATRA	DEPT. OF ANATOMY, KALINGA INSTITUTE OF MEDICAL SCIENCES, BHUBANESWAR, ODISHA INDIA

ABSTRACT

Ligamentumtereshepatis, which is an embryologicalremnant derived of theobliterated left umbilical vein islodged on the fissure for the ligamentumteres on the inferior surface ofthe liver.

Materials and methods:-We report here an anomalous2 cases where the fissure for ligamentumteres wasobliterated by bridging of liver tissueacross the quadrate and left lobes.This bridging converted the fissureinto a tunnel through which ligamentumteres coursed to its destination.

Discussion:-Lack of separation of lobes, in theearly embryonic period might haveled to this variation. Anomalies like this can often mislead the radiologists or surgeons either in diagnosis or interpretations of liver diseases

KEYWORDS liver,ligamentumteres,fissure for ligamentumteres

Introduction:-

The ligamentumteres which also known as'round ligament of liver' is the fibrousremnant of the left umbilical vein. Itextends from the umbilicus(anterior abdominal wall) to the leftbranch of the portal vein, within theliver. During the intrauterine life, itprovides oxygen and nutrient richblood from the placenta to thefoetus. The ligamentumteres withsmall paraumbilical veins lie in the free margin of the falciform ligament and then enters fissure which extending from the inferior border of the liver to the left end of the portahepatis on the visceral surface of the liver. This ligamentum

teres is often used for cannulation in various diagnostic and therapeutic procedures. Though this ligament is claimed to be clinically insignificant by a few, its role in the disease process and clinical procedures cannot be overlooked.Hence this case report aims to present the course of ligamentumteres through an anomalous tunnel in 2 livers observed during a routine dissection. This might serve to generate some data which can be made available to help in the appropriate planning in diagnosingof liver diseases& also in surgery.

Materials and Methods:-

This livers are found in the Anatomy Department during dissection of the abdominal region of an adult male cadavers of middle age, which are unclaimed cadavers & the past medical history of them was not known. The livers looked healthy and was of normal size and shape, The liver fissures and lobes were studied and the variations were noted. The liver specimens were photographed.

observations:-

The fissure for ligamentumteres was absent. The ligamentumteres entered the liver through a tunnel on the visceral surface of the liver. The

tunnel for the ligamentumteres which situated to the left of the quadrate

lobe.The quadrate lobe extended freely into the anatomical left lobe of the liver.

Fig:-1 The fissure for ligamentumteres was absent. The ligamentumteres entered the liver through a tunnel on the visceral surface of the liver

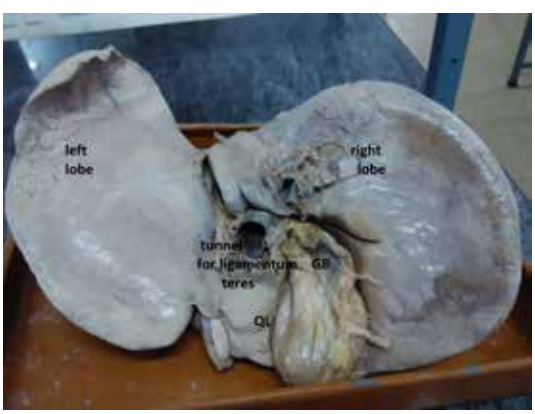
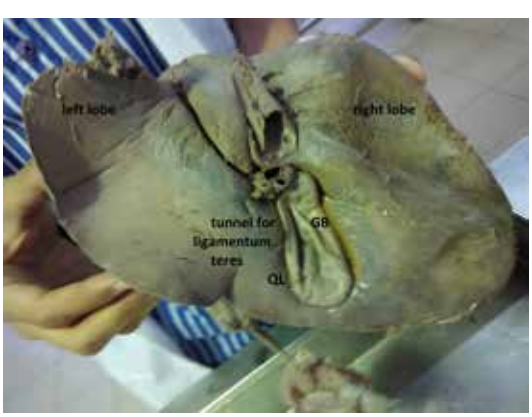


Fig:-2 The fissure for ligamentumteres was absent. The ligamentumteres entered the liver through a tunnel on the visceral surface of the liver



Discussion:-

Due to the presence of this tunnel, the demarcation between the quadrate lobe and left lobe of the liver was not very clear. Absence of fissure for the ligamentumteres has been reported in previous studies[3,4,5.] A case of liver with the presence of complete tunnel instead of fissure for ligamentumteres has been reported by Ebbyet al[6]. But in that case the tunnel was found on the diaphragmatic surface of the liver and the quadrate lobe was absent. The liver is separated into the left and right lobes by the falciform and round ligaments in the second month of gestation. Lack of separation might often result in fusion of lobes during the embryonic period[7]. This could be one of the possible reasons for having a tunnel for ligamentumteres rather than a fissure as observed by us. In the supine position of the body, the fissure for ligamentumteres contains some air in case of pneumoperitoneum. This air is visible in radiographs as a vertically directed area of hyperlucency[8].Presence of a tunnel in place of the ligament might mask this hyperlucent area, which in turn might make the

diagnosis difficult. Obliteration of fissure for ligamentumteres or its transformation into a tunnel alters the anatomy of the quadrate lobe as well. Aktan et al[9], have reported the complete absence of the quadrate lobe in about 3.7% of individuals and anatomical abnormality of the same in 29.63% of individuals.Satheesha et al[10], recently reported a peculiar liver with the total absence of fissure for ligamentumteres and the quadrate lobe. In this case, the ligamentumteres entered the liver through its anterior surface.

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