

DOUBLE GALL BLADDER, A CASE REPORT. EMBRYOLOGICAL BASIS AND CLINICAL IMPLICATIONS

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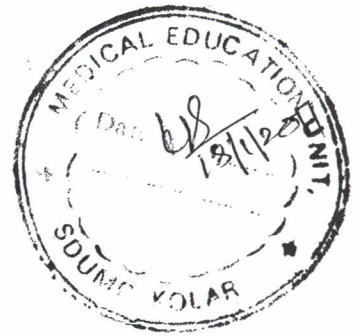
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ABSTRACT

Double Gall Bladder is a rare congenital anomaly. It is important to diagnose it preoperatively. Ultrasound is the preferred modality of imaging. Laparoscopic cholecystectomy can be safely done in benign conditions of Gall Bladder. We report a case of Double Gall Bladder observed during routine dissection in a middle aged male cadaver in the dept of anatomy of SDUMC, Kolar as it is very rare.

KEY WORDS

Gall Bladder, cystic, duplication, cholecystectomy

INTRODUCTION

Considering the fact that Gall Bladder disease commonly requires surgery, it is very important to reveal any congenital anomalies before the surgical treatment in order to prevent the occurrence of serious complications. Preoperative diagnosis of the second Gall Bladder may be difficult or even may be missed (Goiney et al, 1985).

MATERIAL AND METHODS

During routine dissection of cadavers in the Dept of anatomy of SDUMC, Kolar we came upon middle aged formalin fixed male cadaver with double Gall Bladder.

OBSERVATIONS

Each Gall Bladder had a separate peritoneal sheath. A common cystic duct arising at the junction of the neck of two Gall Bladders was seen. The cystic duct united with the common hepatic duct to form the common Bile duct which opened into the second part of duodenum. The two Gall Bladders lay at right angles to one another. Both Gall Bladders had no evidence of wall thickening and stone formation. The cystic artery arising from right hepatic artery divided into two branches to supply the two Gall Bladders. The two Gall Bladders were subjected to further histological processing and showed normal histological configuration.

DISCUSSION

Incidence of double Gall Bladder is 1 in 4000 births (Garcia et al, 1993). It is important to diagnose this anomaly preoperatively. The second Gall Bladder may be overlooked during surgery (Miyajima et al, 1995). The two main types of duplications are classified into vesica fellea divisa or bilobed Gall Bladder and vesica fellea duplex or true duplication i.e. double gall bladders with two different cystic ducts (Boyden 1926). The true duplication is further sub classified into Y shaped type i.e. two cystic ducts unite before entering into Common Bile duct and ductular type (2 separate Gall

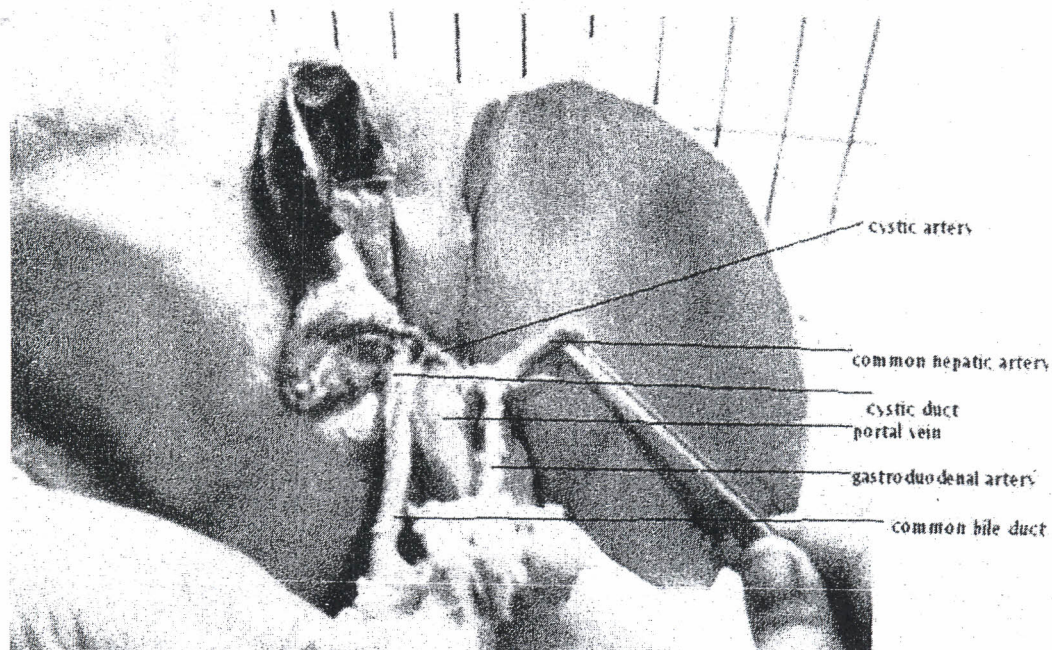


Figure 1 – Showing Double Gall Bladder

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|------------------|---------------------------|---------------------|
| 1) Cystic Artery | 2) Common Hepatic Artery | 3) Cystic Duct |
| 4) Portal vein | 5) Gastro duodenal Artery | 6) Common Bile duct |

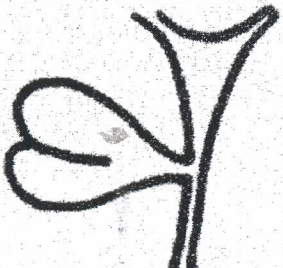
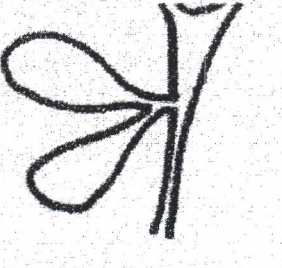
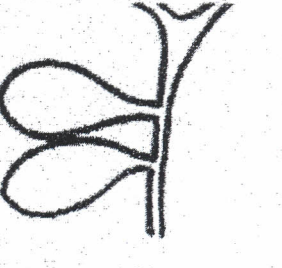
Vesica fellea divisa	Vesica fellea duplex	
	Y-shaped type	H-shaped type
		

Figure 2. Boyden's classification of Double Gall Bladder

Bladder and Cystic ducts opening separately into Common Bile duct). Usually the 2 Gall Bladders are adherent and occupy the same fossa. We observed a case of vesica fellea duplex with a variant of Y shape type as we observed a single cystic duct.

EMBRYOLOGICAL BASIS

True duplication is more common and occurs due to bifurcation of Gall Bladder primordium during the fifth and early sixth week of intrauterine life. Duplication results from a split primordium whilst an accessory gall bladder results from an extra primordium. Differential diagnosis of double Gall Bladder include Gall Bladder fold, focal adenomyomatosis, phrygian cap, Choledochal cyst, Gall Bladder diverticulum.

CONCLUSION

Double Gall Bladder do not present with specific symptoms and the incidence of the disease in this Gall Bladder is similar to its normal variant. Gall Stone is the commonest complication occurring in one lobe but both lobes may be involved. There is no increase in incidence of the disease in double Gall Bladder so prophylactic Cholecystectomy is not recommended. Gold standard investigation to reveal this anomaly is contrast enhanced MR Cholangiography.

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