ANATOMICAL CLASSIFICATION OF CATTERPILLAR HUMP OF RHA AND ITS SURGICAL IMPORTANCE (Nagpur Classification)

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BACKGROUND

Ligation of cystic artery is important surgical step involving gallbladder and hepatobiliary surgery. Right hepatic artery may come very close to gallbladder & cystic duct and CHD in the form of "Caterpillar hump or Moynihan hump''. Such hump has variations in position and depending on hump type, cystic artery anatomy is defined. In this situation right hepatic artery is liable to be mistakenly identified as cystic artery and it will be ligated prior to Cholecystectomy leading to right functional lobe of liver goes for necrosis. By defining types, increasing surgeon's awareness, surgical complications will be reduced

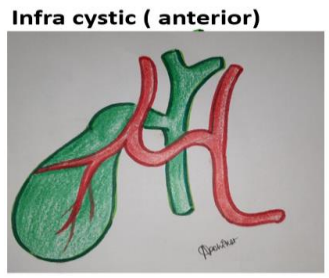
MATERIAL AND METHOD

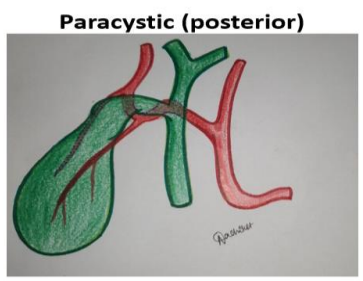
600 videos of laparoscopic surgery of gall bladder and CBD exploration were retrospectively reviewed for presence of caterpillar hump in RHA in Rahate Surgical hospital and Seven-star Hospital, Nagpur, Maharashtra, India from 2012 to 2021 April. Lot of literature was reviewed. Type of hump and its anatomical relations and difficulty level of laparoscopic surgery because of hump was assessed

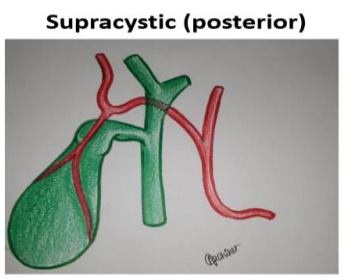
RESULTS

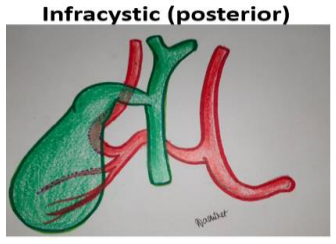
-Caterpillar hump was present in 21 cases (3.5%) in present study. We found lot of anatomical variations of hump, and judged the level of difficulty of laparoscopic cholecystectomy depending on type of caterpillar hump. We propose a simple classification of type of caterpillar hump depending on observations

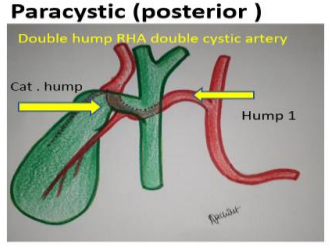
(Nagpur Classification)

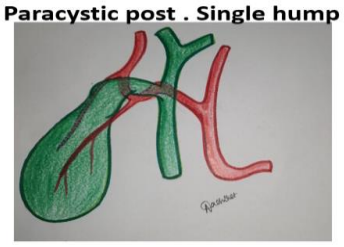












SR. NUMBER	TYPE OF HUMP	ANTERIOR /POSTERIOR	NUMBER OF CASES	NUMBER OF CASES	%
1	SUPRACYSTIC	POSTERIOR	ONE	11	52.380
2	SUPRACYSTIC	ANTERIOR	ONE	1	4.761
3	PARACYSTIC	POSTERIOR	TWO	4	9.523
4	PARACYSTIC	ANTERIOR	ONE	1	4.761
5	INFRACYSTIC	POSTERIOR	ONE	1	4.761
6	INFRACYSTIC	ANTERIOR	NIL	NIL	0

CONCLUSION

With increasing incidence of gall bladder and ductal disease, knowing the vascular anatomy and likelihood of complications should be known to all surgeons. Ductal anatomy had been extensively studied and documented. Vascular anatomy has been little neglected, this is an attempt to make surgeons aware of callots triangle vascular anatomy. So that the surgeons are able to identify this arterial variation during their cholecystectomy surgeries. If this caterpillar hump of right hepatic artery is present, the surgeons should locate the origin of cystic artery to avoid any unnecessary confusion between cystic artery and right hepatic artery for preventing unnecessary damage to the right hepatic artery. In an attempt to classify caterpillar hump, we can define, predict position of cystic artery type and variation, thereby helping in preventing vascular complications during laparoscopic cholecystectomy and CBD exploration.

This is single centre observation involving a single surgical team. This topic needs multi centre analysis with surgeons and anatomist.