Compression of hepatoduodenal ligament by sponges during perihepatic packing for liver trauma leading to difficult maneuvering of angiography catheter through common hepatic artery: Mishra phenomenon

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Exploratory laparotomy with perihepatic packing by surgical sponges is a standard procedure for patients with hemorrhagic shock from liver trauma. If the patient is not hemodynamically stable/stabilizing even after perihepatic packing, the patient is subjected to angiographic embolization after identifying the bleeder. For such intervention the angiography catheter has to traverse through the common hepatic artery which runs through the hepatoduodenal ligament. In our experience, it was observed two cases where the angiography catheter failed to negotiate through the hepatic artery (in hepatoduodenal ligament) after perihepatic packing. Interestingly there was blood flow in the same vessel (demonstrated by angiography) but the extrinsic compression was not enough to cause blood flow to stop, but enough to cause failure of catheter negotiation especially through vascular bends. It happened during the initial experiences of hepatic artery embolization and as a policy perihepatic packing around the hepatoduodenal ligament was avoided. In 80 cases over past five years, such problem was never observed before. It is suggested that this phenomenon occurs due to compression of hepatoduodenal ligament by sponges and would like to name this as 'Mishra phenomenon' after the surgeon who first observed it. To the best of our knowledge, there is no mention of such phenomenon in literature. The implication of this phenomenon is that if we are aware of this, we can avoid perihepatic packing around hepatoduodenal ligament preventing extrinsic compression of common hepatic artery so that angioembolization if needed is not jeopardized.

Biography

Biplab Mishra is an additional professor of surgery from All India Institutes of Medical Sciences (AIIMS), Delhi. His area of interest/specialization is thoracoabdominal trauma and thoracic surgery. He has publications in more than 18 journals. He is the fellow of American college of surgeons (FACS) and international college of laparoscopic surgeons (FCLS). He is Program Director of Management of Acute Wounds in Ed (MAWE) course and Course Director of Advanced Trauma Life Support (ATLS) course. He was awarded ‘Shaurya Puraskar’ for exemplary performance/surgical achievement in managing cases of penetrating torso trauma impalement by an iron rod and ruptured heart secondary to trauma in 2009 and ‘Delhi Ratan’ for recognition of significant contribution to humanity.

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