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Guest Editorial

Hepatobiliary and pancreatic disorders

Hepatobiliary and pancreatic disorders are some of the commonest disorders of the digestive system. The hepatopancreatobiliary system has a complex embryological development and therefore is subject to anomalies that may sometimes have deleterious implications on the body physiology, besides being associated with a spectrum of acquired problems that require specialized training to tackle surgically.

Gallstone disease is one of the most prevalent gastrointestinal diseases with a substantial burden on the health care system. Pathogenesis is multifactorial and prevalence has increased in recent years amongst all segments of society probably due to changes in life style, alteration in dietary patterns, altered physical activity.¹ Increasing awareness amongst the population and superior investigative modalities have in no small measure contributed to the rapid diagnosis and ease of management by surgeons and gastroenterologists. Laparoscopic cholecystectomy is a routine general surgical operation practiced all over the world and adoption of single incision laparoscopic cholecystectomy even in small volume hospitals is on the rise.² And in common bile duct stones that often arise due to migration of gall stones, same session ERCP with stone extraction and laparoscopic cholecystectomy is likely to be an effective strategy³ in future.

Amongst all the malignancies, cancer gall bladder is the fifth most common cancer. It is the most common biliary tract malignancy and is characterized as an aggressive and highly lethal disease with widespread discrepancy about its epidemiology, and its precise aetiology is as yet poorly understood. One of the highest incidences is in India, especially the Gangetic belt, and it has been hypothesized and substantiated in several studies that it is probably related to the high content of certain minerals in the water of North India. Surgical resection appears to be the only potential curative approach, but unfortunately a mere minority is eligible for surgery at presentation.^{4,5}

The liver is a highly vascular organ and it has complex tasks of both synthesis and detoxification. Hence it becomes a fertile ground for harbouring infections and infestations. Even though the quality of antibiotics has improved with time, the incidence of liver abscesses has not decreased proportionately. On the other hand, with increasing intervention in the hepatobiliary system, iatrogenic causes of hepatic abscesses are worrisome. So the trend seems to be a shift from a high incidence in the young to average ages in the fifth to sixth decades of life.⁶ With improved methods of tackling

parasitic infestations like ascariasis and hydatid cysts, morbidity is considerably low in recent times and there is a noticeable fall in the overall incidence.⁷

The inevitable consequences of untreated calculi or intervention on the biliary tree, both therapeutically and for injuries, have led to problems like biliary strictures that demand early surgical management. Till about a decade ago, with introduction of ERCP and laparoscopy there was a sudden spurt in this entity. But with improved training, and treatment protocols being laid down based on evidence; mercifully the incidence has started to fall rapidly and more or less has reached a plateau. Biliary tract strictures present both diagnostic and therapeutic challenges to clinicians. Advances in imaging and endoscopic techniques have improved our ability to differentiate between benign and malignant lesions. Intraductal ultrasound has a sensitivity and specificity of 89% and 84% respectively. Intraductal ultrasound and percutaneous transhepatic biliary endoscopy are promising new modalities for diagnosing and treating biliary strictures.⁸

Choledochal cysts are a rare developmental problem in the biliary tree, more frequent in Asia than in Europe or North America.⁹ Imaging modalities have helped us define correctly the extent and nature of the cyst; with improved surgical techniques we can tackle a large number of these disorders with excellent results.

Chronic pancreatitis is a progressive fibro inflammatory disease that exists in large duct (often with intraductal calculi) or small duct forms, and often results from a complex mix of environmental and genetic factors with pain as a predominant symptom.¹⁰ With increasing trend in alcohol use and a rising incidence of gall stones in both males and females one sees a steady rise in incidence of pancreatitis also. However, there is nothing to suggest that idiopathic chronic pancreatitis in India is a different disease.¹¹ Pancreatitis with the consequences of chronic pain, pseudo cyst formation and secondary exocrine and endocrine disorders is a common cause of loss of man hours in an active population. Though the management of pancreatic cancer has a well planned protocol, chronic pancreatitis continues to be a problem with no certainty of cure. Morbidity remains high and major surgery has never been an answer to the vexing issue in the prime of one's life. The very fact that there exists a number of surgical options to choose from is in itself evidence to prove how unsatisfactory its management is.

The cause of pancreatic cancer remains unknown with an estimated 5-year survival of less than 5%. Though important advances have been made in understanding the molecular biology, several environmental factors are postulated to be causative and at least upto 10% may have a positive family history.¹²

Portal hypertension, which often presents as an emergency upper GI bleed is still a concern in our country, both in the paediatric and adult age groups. In the recent years, data from the Indian subcontinent has started coming in and several centres in the country have produced good results following shunt surgery. EHPVO (54%) and cirrhosis (39%) are the two major causes of portal hypertension in children, the predominant cause of bleeding being in the former.¹³ However the outlook in cirrhotics continues to be dismal and liver transplant is a distant dream as yet, to the multitude of cirrhotics with portal hypertension.

To conclude, it is gratifying to note that the plethora of problems related to the hepatopancreatobiliary system is being addressed. Molecular biology has opened up many avenues unheard of so far, imaging has widened the scope of early diagnosis and intervention, surgical techniques have vastly improved and there has been a fall in morbidity and mortality in many areas.

Conflicts of interest

None identified.

REFERENCES

1. Resnetnyak V. Concept of pathogenesis and treatment of cholelithiasis. *World J Hepatol*. 2012;4(2):18–34.
2. Lill S, Karvonen J, Hamalainen M, et al. Adoption of single incision laparoscopic cholecystectomy in small volume hospitals; initial experience of 51 consecutive procedures. *Scand J Surg*. 2011;100(3):164–168.
3. Jakobsen HL, Vilmann P, Rosenberg J. Endoscopic sphincterotomy for common bile duct stones during laparoscopic cholecystectomy. *Surg Laparosc Endosc Percut Tech*. 2011;21(6):450–452.
4. Mastoraki A, Papanikolaou IS, Konstandiadon I, Sakorafas G, Safideas M. Facing the challenges of treating gall bladder carcinoma: review of literature. *Hepatogastroenterology*. 2010;57(98):215–219.
5. Misra S, Chaturvedi A, Misra NC. Gall bladder cancer. *Curr Treat Options Gastroenterol*. 2006;9(2):95–106.
6. Rahimian J, Wilson T, Oram V. Pyogenic liver abscess: recent trends in etiology and morbidity. *Clin Infect Dis*. 2004;39:1654–1659.
7. Christine MB, Deplazes P, Torgensen PR. Global socioeconomic impact of cystic echinococcosis. *Emerg Infect Dis*. 2006;12(2):76.
8. Inui K, Yoshino J, Miyoshi H. Differential diagnosis and treatment of biliary strictures. *Clin Gastroenterol Hepatol*. 2009;7(11 suppl):s79–s83.
9. Akira O, Hasegawa T, Oguchi Y, et al. Recent advances in pathophysiology and surgical treatment of congenital dilatation of the bile duct. *J HPB Surg*. 2002;9:232.
10. Braganza JM, Lee SH, McCloy RF, Mc Mohan MJ. Chronic pancreatitis. *Lancet*. 2011;377(9772):1184–1197.
11. Garg PK. Chronic pancreatitis in India: untying the nutritional knot. *Ind J Gastroenterol*. 2011;30(2):63–65.
12. Hidalgo M. Pancreatic cancer. *NEJM*. 2010;362:1605–1617.
13. Poddar U, Thapa BR, Rao KL, Singh K. Etiological spectrum of esophageal varices in Indian children; is it different from the West. *J Gastroenterol Hepatol*. 2008;23(9):1351–1357.

Brig S. Rajagopalan
Professor & HoD, Department of Surgery,
AFMC, Pune 411 040, India
E-mail address: rajdel17@hotmail.com

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