Hepatology in India and INASL: A Ringside View

Anil C. Anand

Armed Forces Medical Services, New Delhi 110001, India

A few months back the Editor-in-Chief of this journal asked me to write a contemporary piece on 'the future of hepatology in India'. He said, "You have touched some of these issues as an outgoing president, just put it in writing". I was very reluctant to take up this task in the beginning. My lack of enthusiasm stemmed from two main reasons. Firstly, I was aware that three doyens of Hepatology in India namely Dr. Subrat K. Acharya, Dr. Yogesh K. Chawla and Dr. Shiv K. Sarin, (in alphabetical order), had delivered exquisite discourses on this issue some time back. And then, given my service background, I was insulated from the forces that have led to chaotic development of this specialty in India. But possibly what I did have was the best ringside view, to be able to introspect and comment on the development of Hepatology in India during the last few decades. In the Armed Forces, we often spend considerable time in planning and in trying to ensure careful execution of the agreed plan. I am still not clear if such an exercise was ever done in India for Hepatology. We are far from having a clear plan as to how many Hepatologists does our country need? How are we going to get so many doctors to specialize in Hepatology? If we do manage the required numbers, how would we employ them to have best results for our people?

Most leading hepatologists of India have said that the future of Hepatology in this country is very promising. There have been tremendous advances in the management of liver disease. Liver transplantation outcomes are as good as the best in the world.¹ Research in India is now to be reckoned with. Publications by Indian investigators in peer-reviewed international journals, which were few and far between earlier, are now commonplace.²⁻¹⁹ Emphasis on Hepatology training is increasing and regular post-doctoral training courses (DM in Hepatology) are now running in at least two institutes and are likely to commence soon in two more. National task forces are studying Indian problems in details. There have been excellent studies in

'community hepatology' from West Bengal and Punjab.²⁰⁻²² Exciting work on problems specifically important to India such as hepatitis E,^{5,23,24} vascular diseases of liver (Non-cirrhotic Portal Fibrosis,²⁵⁻²⁸ Extrahepatic Portal Venous Obstruction²⁹⁻³⁴ and Hepatic Venous Outflow Obstruction³⁵⁻³⁸), and parasitic hepatobiliary diseases^{39,40} is being published from India. Although the above facts are heartening, they hardly provide a holistic picture. While it is important to pat ourselves on the back, it is equally important to realize what is amiss. What follows is my perception and an elucidation from my ringside seat.

Way back, when I was a student of medicine in the early 1980s, I had heard that a department of Hepatology had been created in Postgraduate Institute of Medical Education and Research, Chandigarh, which was the only one of its kind in the whole country. Despite having illustrious teachers, no structured postgraduate courses could be started in this 'National Centre of Excellence' for Hepatology for nearly *three decades*. Thanks to the efforts of the present faculty, the first batch of DM (Hepatology) candidates has passed out in December 2010. I had the good fortune of being a part of this event but was disheartened to learn that external examiners did not appear very passionate to start a similar course in their respective institutions. Moreover, a few faculty members from a sister department of same institute did not appear convinced about the need of this course and asked me, "What is it that a hepatologist will do more than a gastroenterologist?" They thought so because a major part of DM (Gastroenterology) syllabus is liver disease. One of my colleagues tried to justify, "Hepatologists will have more in-depth knowledge about liver diseases and will possibly spend more time in community studies and molecular biology work. Then there is always liver transplantation to be dealt with". But question remained how much molecular biology work or even community research was being done in India? Recently, India did acquire a dedicated institute devoted to Hepatology but all the institutes running post-doctoral courses in Hepatology were still some time away from having a steady and robust liver transplantation programme!

Sibling rivalry between *Hepatology* and *Gastroenterology* in India is really very arduous. There is a joint annual meeting of ISG (i.e. Indian Society of Gastroenterology, an older and a bigger society) along with midterm meetings of INASL (Indian National Association for the Study of Liver) and SGEI (Society of Gastrointestinal Endoscopy of India). Midterm meetings of INASL and SGEI are sub-allotted last 2 days of the 4-day meeting. Almost the same persons are

Keywords: Hepatology, India, Liver transplantation, Advocacy

Received: 11.7.2012; **Accepted:** 11.7.2012; **Available online:** 13.8.2012

Address for correspondence: Anil C. Anand, DGMS (Navy) & Chief Consultant (Medicine & Gastroenterology), Room No 142A, A Wing, Sena Bhavan, New Delhi 110011, India. Tel.: +91 11 23093128

E-mail: anilcanand@gmail.com

Abbreviations: ISG: Indian Society of Gastroenterology; INASL: Indian National Association for the Study of Liver; SGEI: Society of Gastrointestinal Endoscopy of India; DDLT: deceased donor liver transplantation; LDLT: living donor liver transplants

<http://dx.doi.org/10.1016/j.jceh.2012.07.005>

members of all three societies. And a constant grumble from INASL is that ISG has already discussed all interesting liver-related topics in first 2 days, making the scientific programme of INASL appear a bit lack-luster. There have been several attempts to coordinate the scientific programme of ISG and INASL (Honorary Secretaries of two societies are often close friends) but ISG considers it their birthright to discuss all liver disease papers because *Gastroenterology* traditionally encompasses *Hepatology* in this country! All gastroenterologists in India continue to practice Hepatology and it remains to be seen if committed hepatologists (a new breed since 2011) will refrain from treating patients with luminal disease. The main reason for this confusion is that the primary aim of most specialists in India is to earn reasonable money in their practice. Pure Hepatology is being practiced only in teaching institutions. Faculty posts in such institutes in public sector are very few. Many faculty posts that exist are often not filled up due to various controversies, which include legal issues, lackadaisical approach of the institute's management, reservations for underprivileged and backwards classes and in some cases political interference. Merit often does not ensure a faculty seat in public sector institutes, and therefore many meritorious hepatologists have to fend for themselves. Molecular biology research and community studies are low paying jobs while endoscopy is the cash cow. Therefore, I will not be surprised to see hepatologists doing luminal gastroenterology as well. That brings me to the basic question again, "Is our country ready to split erstwhile Gastroenterology into Hepatobiliary Science on one hand and Luminal Gastroenterology and Pancreatology on the other?"

Army Hospital is a rare public sector institute that was able to establish a deceased donor liver transplantation (DDLT) programme. It is virtually the only DDLT programme in a public sector institute in the whole country. The transplants done at other government sector hospitals can be counted on one's fingertips. Majority of liver transplants in India are being done in the private sector and the public sector has a long way to go to catch up. And most if not all transplants done in private hospitals are living donor liver transplants (LDLT).⁴¹ Some transplant surgeons keep moving from hospital to hospital in search of numbers. Data from private institutes with transplant centers regarding survival and complications are yet to be published in peer-reviewed journals⁴²⁻⁴⁴ and there are often doubts expressed in some quarters about authenticity of claims made by 'single surgeon' experiences. There are many unconfirmed reports of a few donor deaths too,^{45,46} but such issues are never talked about in open fora for obvious reasons. The impression one gets at times is disturbing. Since the basic mantra of a corporate hospital is to generate profits, it is said that everything else can be arranged. This may range from convincing patients/relatives about indications of transplantation

(only way to save patients life), down to having middlemen to attract medical tourism. A colleague of mine recently said, "Rs 25 lakhs (US \$ 500,000) + donor is an indication for LDLT. And there are rumors that some centers may also arrange an unrelated 'altruistic' donor for an additional price". At one time India was notorious for the sale of kidneys for transplantation.⁴⁷ Despite enactment of 'Brain Death and Organ Transplantation Act', very few deceased donor kidney transplants are being done in private sector. One always fears similar dealings may be taking place in the field of liver transplantation. Dr. Susan Lim from Hong Kong, in an emotional talk (available at TED.com)⁴⁸ spoke frankly about how she, in a pregnant state, was repeatedly asked to go to prison before sunrise, passing in front of cells of condemned prisoners, to retrieve organs from executed prisoners. She promoted the use of iPS cells (induced pluripotent stem cells) for transplantation to reduce the need for organ transplantation. In India, there seems to be general apathy towards change because everyone's bread (or may be butter) depends on existing methods of working.

So in this set up, how can INASL improve things? Some initiatives have already been taken. INASL has undertaken the commitment of creating National Study groups or task forces to collate data from all major centers on common diseases seen in this country. A task force report on NAFLD and NASH is nearing completion, while that on Hepatitis B and C virus infection are underway. Hepatocellular carcinoma is another area that will be targeted soon. Some major centers do hold back information but that has not stopped INASL from going ahead. INASL is already conducting one annual and 4-5 single theme educational meetings which have international faculty and attendance. We are also moving towards professional management of our conferences and our society. This will spare the key functionaries from mundane task of dealing with administrative aspects of management and allow them to devote more time to scientific work.

So far INASL as a society has done little to promote organ donation in India and this is another area of concern. The need for a central liver transplant registry and transparency has been felt by many in recent years. INASL, through advocacy with Government, can get all liver transplant centers on board both for promoting transparency in organ sharing and research on various aspects of liver transplantation. The society also needs to provide support to the public sector government hospitals to catch up in the field of liver transplant services.

There are many ways that INASL can support indigenous research. The society may create a Research Foundation to encourage conduct of workshops in subjects such as research methodology, tools of molecular research and clinical epidemiology. Building capital to sponsor research and to encourage small, individual players, setting national priorities and identifying thrust areas, developing ability

for multi-centric data collection and conducting such research projects are other areas that we need to work on. As a society, one can advocate with research bodies for sponsoring multi-centric projects and set targets to increase output and quality. Some of the basic subjects such as estimation of disease burden in India, creation of practice guidelines with an Indian perspective on various liver diseases and taking up a guiding role in State and National initiatives in Hepatology-related matters are other areas we need to focus on. In developing countries like India, most technological advances, which are inherently expensive, are beyond the reach of the common man. We need different and innovative approaches to tackle our problems and sharpen our focus on preventive strategies. And INASL is our best bet to move in that direction.

Among the Hepatologists in India, we have some of the most influential personalities but our track record in promoting good Hepatology practice in India, creating awareness about liver diseases among the lay public and in promoting need based research has been less than ideal. INASL could appoint an advocacy committee to oversee these aspects. We still have not been able to convince all the state governments to include Hepatitis B vaccine in their extended immunization schedule. We still see more advertisements about 'liquor brands' than we see about ill effects of alcohol or drunken driving in the lay press. We need to rise to the task of advocating and implementing policies with support of government because our primary goal are similar i.e. the health of our people. Even on the education front, we need to achieve clarity on the scope and syllabi of two closely related branches of Medicine such as Hepatology and Gastroenterology.

The father of our Nation, Mohandas Karamchand Gandhi once said, "Be the CHANGE that you wish to see". We, as a society of professionals need to motivate ourselves to face the needs of the people of our country and for that a lot needs to be done. Hepatology in India is like a wild stallion raring to go. It remains to be seen if INASL can take the reins and give it a direction!

CONFLICTS OF INTEREST

The author has none to declare.

REFERENCES

1. Soin AS, Kumaran V, Rastogi AN, et al. Evolution of a reliable biliary reconstructive technique in 400 consecutive living donor liver transplants. *J Am Coll Surg*. 2010 Jul;211(1):24–32.
2. Prasad S, Dhiman RK, Duseja A, Chawla YK, Sharma A, Agarwal R. Lactulose improves cognitive functions and health-related quality of life in patients with cirrhosis who have minimal hepatic encephalopathy. *Hepatology*. 2007 Mar;45(3):549–559.
3. Devarbhavi H, Rao P, Patil M, Adarsh CK. Characteristics of ascites in patients with pregnancy-specific liver diseases. *Clin Gastroenterol Hepatol*. 2012 May;10(5):559–562.
4. Govindasamy M, Srinivasan T, Varma V, et al. Biliary tract tuberculosis – a diagnostic dilemma. *J Gastrointest Surg*. 2011 Dec;15(12):2172–2177.
5. Aggarwal R, Jameel S. Hepatitis E. *Hepatology*. 2011 Dec;54(6):2218–2226.
6. Sarin SK, Kumar M, Shrivastava S, Sinha S, Pati NT. Influence of chronic HBV infection on pregnancy: a human model of maternofetal virus host interactions. *Gastroenterology*. 2011 Oct;141(4):1522–1525.
7. Devarbhavi H, Karanth D, Prasanna KS, Adarsh CK, Patil M. Drug-Induced liver injury with hypersensitivity features has a better outcome: a single-center experience of 39 children and adolescents. *Hepatology*. 2011 Oct;54(4):1344–1350.
8. Sarin SK, Sharma P. Terlipressin: an asset for hepatologists!. *Hepatology*. 2011 Aug;54(2):724–728.
9. Tohra SK, Taneja S, Ghosh S, et al. Prediction of sustained virological response to combination therapy with pegylated interferon alfa and ribavirin in patients with genotype 3 chronic hepatitis C. *Dig Dis Sci*. 2011 Aug;56(8):2449–2455.
10. Pande C, Sarin SK, Patra S, et al. Prevalence, risk factors and virological profile of chronic hepatitis B virus infection in pregnant women in India. *J Med Virol*. 2011 Jun;83(6):962–967.
11. Sarin SK, Kumar A, Angus PW, et al. Asian Pacific Association for the Study of the Liver (APASL) Working Party on Portal Hypertension. Diagnosis and management of acute variceal bleeding: Asian Pacific Association for Study of the Liver recommendations. *Hepatol Int*. 2011 Jun;5(2):607–624.
12. Poddar U, Bhatnagar S, Yachha SK. Endoscopic band ligation followed by sclerotherapy: is it superior to sclerotherapy in children with extrahepatic portal venous obstruction? *J Gastroenterol Hepatol*. 2011 Feb;26(2):255–259.
13. Garg V, Garg H, Khan A, et al. Granulocyte colony-stimulating factor mobilizes CD34(+) cells and improves survival of patients with acute-on-chronic liver failure. *Gastroenterology*. 2012 Mar;142(3):505–512.
14. Garg H, Sarin SK, Kumar M, Garg V, Sharma BC, Kumar A. Tenofovir improves the outcome in patients with spontaneous reactivation of hepatitis B presenting as acute-on-chronic liver failure. *Hepatology*. 2011 Mar;53(3):774–780.
15. Sharma BC, Sharma P, Agrawal A, Sarin SK. Secondary prophylaxis of hepatic encephalopathy: an open-label randomized controlled trial of lactulose versus placebo. *Gastroenterology*. 2009 Sep;137(3):885–891. 891.
16. Kumar A, Jha SK, Sharma P, et al. Addition of propranolol and isosorbide mononitrate to endoscopic variceal ligation does not reduce variceal rebleeding incidence. *Gastroenterology*. 2009 Sep;137(3):892–901. 901.
17. Duseja A, Sharma B, Kumar A, et al. Nonalcoholic fatty liver in a developing country is responsible for significant liver disease. *Hepatology*. 2010 Dec;52(6):2248–2249.
18. Singh V, Ghosh S, Singh B, et al. Noradrenaline vs. terlipressin in the treatment of hepatorenal syndrome: a randomized study. *J Hepatol*. 2012 Jun;56(6):1293–1298.
19. Goel A, Yadav S, Saraswat V, et al. Cerebral oedema in minimal hepatic encephalopathy due to extrahepatic portalvenous obstruction. *Liver Int*. 2010 Sep;30(8):1143–1151.
20. Sood A, Midha V, Bansal M, Sood N, Puri S, Thara A. Perinatal transmission of hepatitis C virus in northern India. *Indian J Gastroenterol*. 2012 Jan;31(1):27–29.
21. Chowdhury A, Santra A, Chaudhuri S, et al. Hepatitis C virus infection in the general population: a community-based study in West Bengal, India. *Hepatology*. 2003 Apr;37(4):802–809.
22. Das K, Das K, Mukherjee PS, et al. Nonobese population in a developing country has a high prevalence of nonalcoholic fatty liver and significant liver disease. *Hepatology*. 2010 May;51(5):1593–1602.

23. Aggarwal R. Clinical presentation of hepatitis E. *Virus Res.* 2011 Oct;161(1):15–22.
24. Khuroo MS. Discovery of hepatitis E: the epidemic non-A, non-B hepatitis 30 years down the memory lane. *Virus Res.* 2011;161:3–14.
25. Dhiman RK, Chawla Y, Vasishtha RK, et al. Non-cirrhotic portal fibrosis (idiopathic portal hypertension): experience with 151 patients and a review of the literature. *J Gastroenterol Hepatol.* 2002 Jan;17(1):6–16.
26. Sarin SK, Kumar A, Chawla YK, et al. Members of the APASL Working Party on Portal Hypertension. Noncirrhotic portal fibrosis/idiopathic portal hypertension: APASL recommendations for diagnosis and treatment. *Hepatol Int.* 2007 Sep;1(3):398–413.
27. Chattopadhyay S, Govindasamy M, Singla P, et al. Portal biliopathy in patients with non-cirrhotic portal hypertension: does the type of surgery affect outcome? *HPB (Oxford).* 2012 Jul;14(7):441–447.
28. Goel A, Ramakrishna B, Madhu K, et al. Idiopathic noncirrhotic intrahepatic portal hypertension is an ongoing problem in India. *Hepatology.* 2011 Dec;54(6):2274.
29. Dilawari JB, Chawla YK. Extrahepatic portal venous obstruction. *Gut.* 1988 Apr;29(4):554–555.
30. Chawla YK, Dilawari JB, Ramesh GN, Kaur U, Mitra SK, Walia BN. Sclerotherapy in extrahepatic portal venous obstruction. *Gut.* 1990 Feb;31(2):213–216.
31. Dilawari JB, Raju GS, Chawla YK. Development of large spleno-adreno-renal shunt after endoscopic sclerotherapy. *Gastroenterology.* 1989 Aug;97(2):421–426.
32. Dilawari JB, Chawla YK. Pseudosclerosing cholangitis in extrahepatic portal venous obstruction. *Gut.* 1992 Feb;33(2):272–276.
33. Dhiman RK, Puri P, Chawla Y, et al. Biliary changes in extrahepatic portal venous obstruction: compression by collaterals or ischemic? *Gastrointest Endosc.* 1999 Nov;50(5):646–652.
34. Dhiman RK, Behera A, Chawla YK, Dilawari JB, Suri S. Portal hypertensive biliopathy. *Gut.* 2007 Jul;56(7):1001–1008.
35. Dilawari JB, Bamberg P, Chawla Y, et al. Hepatic outflow obstruction (Budd–Chiari syndrome). Experience with 177 patients and a review of the literature. *Medicine (Baltimore).* 1994 Jan;73(1):21–36.
36. Mohanty D, Shetty S, Ghosh K, Pawar A, Abraham P. Hereditary thrombophilia as a cause of Budd–Chiari syndrome: a study from Western India. *Hepatology.* 2001 Oct;34(4 Pt 1):666–670.
37. Gupta D, Vijaya DR, Gupta R, et al. Prevalence of hepatopulmonary syndrome in cirrhosis and extrahepatic portal venous obstruction. *Am J Gastroenterol.* 2001 Dec;96(12):3395–3399.
38. Shetty S, Ghosh K. Thrombophilic dimension of Budd–Chiari syndrome and portal venous thrombosis – a concise review. *Thromb Res.* 2011 Jun;127(6):505–512.
39. Singh SP, Meher C, Agrawal O. Biliary ascariasis associated with chronic calcific pancreatitis of the tropics. *Trop Gastroenterol.* 2006 Apr–Jun;27(2):99–100.
40. Sharma M, Pathak A, Bansal S. Dead worm in common bile duct. *Trop Gastroenterol.* 2011 Oct–Dec;32(4):343–345.
41. Kakodkar R, Soin AS, Nundy S. Liver transplantation in India: its evolution, problems and the way forward. *Natl Med J India.* 2007;20:53–56.
42. Thomas G. Liver transplantation in India. *Natl Med J India.* 2007;20:213–214.
43. Desai HG. Living donor adult to adult liver transplantation – need for more regulation. *Natl Med J India.* 2011;24:243.
44. Anand AC. Devil's alternative: will you donate a part of your liver to save an ailing relative? *Natl Med J India.* 2007;20:30–33.
45. Srinivas AV. Living donor liver transplantation. *Indian J Med Ethics.* 2005;2:89–90.
46. Kumar A. *Liver donor dies in hospital; family alleges negligence.* The Hindu; Tuesday, July 3, 2012 (Delhi City Edition): p3.
47. Anand AC. Kidney's for breakfast. *Natl Med J India.* 2004;17:329–331.
48. Lim Susan. *Transplant cells, not organs.* A video talk available at: http://www.ted.com/talks/lang/en/susan_lim.html; 2010.