

Burden of Chronic Liver Disease and Liver Transplantation in Sindh

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In Pakistan more people die of liver disease due to chronic hepatitis every day than terrorism in a year. Pakistan carries one of the world's highest burden of end stage liver disease and mortality due to liver failure and hepatocellular carcinomas (HCC) increasing the demand of liver transplantation (LTX).

Hepatitis is one of the 10 reportable diseases in Pakistan. Among Hepatitis, Hepatitis C Virus (HCV) is one of the commonest causes of chronic liver disease in Pakistan and is one of the leading indications for liver transplant. In Pakistan 10 million people are presumed to be infected with HCV¹ and according to W.H.O, Pakistan is in 2nd position in prevalence of Hepatitis C after Egypt.² There are approximately 1 million chronic carriers of hepatitis B and 1.7 million chronic carriers of hepatitis C in Sindh province of Pakistan.³ Delta hepatitis (HDV) is also found in areas of high hepatitis B prevalence, in a study results revealed that HDV is co infected with Hepatitis B in about 28.3% in Karachi and 60.7% in other areas of Sindh.⁴

In Pakistan, blood transfusion and therapeutic parenteral injections with reusable glass syringes are still the two major sources of hepatitis transmission. Possible reasons for these two include lack of resources, weak infra structure, ill-equipped resources, poorly trained staff, inadequate policy implementation, frequent power breakdown and ineffective screening of blood donors for hepatitis screening.⁵

Cirrhosis is one of the leading cause of mortality amongst Pakistani population and frequent cause of admissions in our hospitals, the Oesophageal varices are usually the commonest complication of cirrhosis with portal hypertension. Ascites recorded as another frequent complication of cirrhosis and was present in 59% of patients and to mark decompensation of liver disease as reported in many studies in Pakistan. Spontaneous bacterial peritonitis (SBP) accounts for about 24 % of in hospital mortality in Pakistan, especially in Sindh.^{6,7}

Liver cancer is the sixth most common cancer globally; In Pakistan it can affect 12 per 100,000 males and 4 per 100,000 females.⁸ Most of the patients present in their fourth and fifth decades of life. HCC generally (96%) occurred in post cirrhotic liver in chronic hepatitis C infected patients. HCC nodules in HCV infected patients are usually less than 5 cm whether mono centric or multicentre, patients with HCV usually present in advance stage of HCC with higher OKUDA scores and surpasses the criteria of surgical/medical management at the time of consultation.⁸

The concept of organ donation before death is almost

unheard to most of the Pakistani population. Doctors and liver specialists urge people to give their consent to cadaver donation in the wake of the death of their loved ones. In Pakistan, however, there is less awareness regarding donation of body organs after death and because of this, it becomes difficult for families of deceased to allow the procedure. On the other hand about 35 percent (300,000) of affected patients need liver transplantation.

The paucity of organs is virtually a universal problem. In some countries, the development of a deceased organ donation programme is hampered by sociocultural, legal and other factors as in Pakistan. The cost of a liver transplant in Pakistan is estimated to be up to Rs 4 to 5 Millions, which is very costly especially for population living in interior Sindh. There was time when liver transplant candidates have to go USA, UK, Singapore and china, but the surgeons and physicians from various Hospitals of India came into picture and patients from Pakistan began to be treated in India. Most vital reasons for suggesting liver transplant in India are cost effectiveness and zero cultural barriers. Currently in Hyderabad, Sindh there is only one centre, Asian Institute of Medical Sciences (AIMS), facilitating, coordinating and referring liver transplant candidate to abroad especially in India. AIMS also under take pre and post transplantation care.

We are still at cross roads regarding the implementation of the law for legal organ donation and illegal organ trade. The delay in the process has evoked serious concern among the experts in the field of ethics of organ transplantation in the country as well as among general population.

Many liver diseases have long natural histories, and there are few treatments that can directly alter their course. To maximize the time to cirrhosis, decrease the need for liver transplantation, and delay death, it becomes important to avoid other injuries to the liver. Pakistan needs a high-profile awareness-raising campaign to educate the people for prevention and control of the disease and to get treatment in right direction. For prevention purposes, there should be universal vaccination for hepatitis B, which is almost in progress everywhere in Pakistan. The most important aspect of prevention is screening of blood products, sterilized equipment, and better hygienic standards in barber-shops. It is an easily preventable disease, but mild lapse in precautions can lead to very disastrous consequences. We need early diagnosis of Liver disease to identify the early warning signs and take action and not only to reduce the risk of liver cancer but also the

future demand for liver transplants. Early diagnosis will also provide the best opportunity for prevention of further spread.

In Sindh, we need at least two liver transplant centres in Karachi and one centre in Hyderabad to deal with deadly liver disease at prompt time and especially for rural population, which belongs to low socio-economic class and most of the times are not willing to go abroad for liver transplantation just because of affordability issues.

Training of junior doctors especially in prospect of end-stage liver disease and liver transplantation. Sindh Government needs to address the allocation of funds for liver and organ transplantation centers. Arrangements of workshops, symposium and public awareness programs, to help patients, optimize quality of life, and provide education about important screening tests for early detection of complications and to help patients optimally to manage complications if occur.

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