Editorial

Hepatitis B and C: Prevention is better than cure

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The World Health Organization has estimated that the global burden of hepatitis B and C is 4.3 million and 800, 000 persons respectively each year in Eastern Mediterranean Region alone contributing to 2% deaths secondary to cirrhosis and hepatocellular carcinoma.[1]

Prevention of hepatitis B has been achieved in many countries globally following its incorporation in the childhood immunization programmes and as individual vaccine in children and adults. For hepatitis C, no vaccine is available therefore prevention following universal adherence to infection control are the mainstay. As both these diseases spread through common source i.e. blood and body secretions, therefore universal childhood vaccination, infection control, blood screening and proper sterilization of invasive medical devices is recommended.

Treatment of hepatitis B and C has evolved in the last 10 years leading to viral clearance and disease control in over 60-70% cases following meticulous selection[2] Despite such a good treatment response rate, the cost statistics for treatment suggest that treatment may not be an ideal option for developing countries with limited resources where treatment options are often misused.[3]

The prevention strategies include universal hepatitis B vaccination to all neonates; catch up vaccination for those children who have missed childhood immunization and vaccination of high risk groups (health care professionals, families of hepatitis B positive cases, population requiring multiple transfusions and people with risky behaviours). For hepatitis C, there is no preventive vaccine available. Protection to the community is supported through adopting universal infection control and safe injection practices in all public and private sector hospitals/clinics and mandatory screening of blood for blood transmissible viruses.

In Pakistan the prevalence for Hepatitis C is 4.9% and for Hepatitis B it is 2.5% with districts having high (prevalence $\geq$8%), intermediate (prevalence 2-7%) and low endemicity (prevalence $\leq$2).[4] The overall 7.5% exposure rate to either of the two viruses suggests that about 12 million people have had exposure to them and about a quarter are likely to be suffering from the chronic complications of these deadly diseases i.e. cirrhosis and hepatocellular carcinoma. Hospital statistics show that about 30-40% medical ward admissions are due to cirrhosis[5] and its complications and over 50% of the hospital budget is spent on their management.

In Pakistan hepatitis B and C will take decades to contain because the coverage of hepatitis B through expanded programme for immunization is still about 54% after almost a decade of introduction of this vaccine in the EPI, catch up vaccination for children is demand driven mostly through NGOs and vaccination of high risk groups is not up to the mark (over 20% health care workers in most public sector settings are still not vaccinated).[6] Screening of blood for these viruses is still not done in 25% blood banks.[1] Implementation of infection control practices and delivery of safe injections are yet other major hurdles to cross before we contain these deadly diseases.

The Prime Minister's programme for hepatitis prevention and control was launched in 2006 with the objectives to contain hepatitis B and C through preventive strategies and to treat a small number of marginalized/non affording cases and see their treatment response. Pakistan is probably the only country in the world to start such a huge programme on a disease of national interest without any donor support. It was an opportunity where not only childhood vaccination could have been escalated but also the disease could have been started to be contained following prevention guidelines apart from monitoring the treatment response in a selected group of cases.

Sheer demand for free treatment from the public and the politicians, lead to providing treatment to a huge population without catering for obvious difficulties in the drug supply chain and tests at the planning and management side. Concerns were also shown on the quality of drugs as these were procured in mass scale on a quarter of the market price.

The paper by Qureshi et al, in the current issue aims to evaluate the efficacy of National Hepatitis Programme for Control and Prevention of hepatitis (NPCPH) in terms of

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success of treatment for hepatitis B and C. The authors have tried to audit the patient's data that were treated through the programme by using the guidelines set by the programme. The authors have demonstrated that though 85 to 99% hepatitis C cases met the eligibility criteria and were suitable candidates for treatment through the programme but this figure was dismally low for hepatitis B selection where only 7 to 10% were eligible, clearly indicating gaps on the training and management side.

Authors reported improper documentation of serological and biochemical tests in the patient's file and high default rate during and post treatment being major drawbacks in correctly evaluating the patient's response and have raised questions on monitoring/evaluation by those concerned with the programme. A response rate of 67% with conventional interferon in hepatitis C is very similar to that reported by others within Pakistan and negates the issues of quality of drugs. The study clearly shows that huge amount of money was spent on treatment and tests with minimal gains. The technical paper by WHO also documents that cost of treating hepatitis B and C far outweighs the cost of implementing preventive strategies hence it is recommended that perhaps a better solution to the problem should be addressing the preventive component and introducing harm reduction measures in clinical practice along with scale up and advocacy of the existing infrastructure.

The lessons learnt from this programme should be used by the policy makers especially in the scenario when Provincial health ministries have been given the task to handle all health issues at their own level and where quality standards, documentation, monitoring and evaluation are not so strong in the Provinces. It is time that Provinces should revisit their hepatitis programme in consultation with experts and using evidence from international guidelines and use their already low health care budget amicably with regular monitoring and evaluation of each component of the programme.

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