

Diabetes and the Role of Tertiary Care Hospitals

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Diabetes mellitus is a worldwide health problem affecting more than 415 million individuals; this estimate is expected to be projected to 642 million individuals by end of the year 2040. Diabetes prevalence, deaths attributable to diabetes, and health expenditure due to diabetes continue to rise across the globe with important social, financial and health system implications.¹ In cross-sectional survey conducted in urban and rural areas of four provinces of Pakistan, the overall prevalence of glucose intolerance (Diabetes mellitus and impaired glucose tolerance) was estimated as 22.04% in urban and 17.15% in rural areas. The major risk factors of diabetes mellitus identified were increasing age, positive family history and obesity especially central obesity.² In another limited survey published from the area of Dir (KPK) in the year 2016, similar rising trends of the disease were verified.³ The prevalence is higher among males than in females and more common in urban areas compared to the rural areas.⁴ These results imply that almost every fourth adult Pakistani is now suffering from this disease and total numbers are estimated to be above 35 million. This is very alarming news which really calls for some extra ordinary response at the level of government, institutions and individuals alike.

Diabetes mellitus is associated with wide ranging and devastating complications, affecting almost all organs and tissues in the body, particularly manifesting with macrovascular (atherosclerosis) and microvascular (renal, ophthalmic, etc.) complications. The high prevalence of the disease is very much reflected by a high percentage of bed occupancy in almost all the discipline of medicine in any hospital. Tertiary care hospitals (TCHs) have traditionally played a role in the management of diabetes by looking after chronically ill patients who usually come with complications. As the number of diabetics in the country has almost quadrupled from the previous

estimates and there are only thin efforts to contain this tide, we think that TCHs should adopt a very proactive, coordinated and multidisciplinary approach to management of the disease. These hospitals are the places where people, most well versed with this problem, are actually found. These are the people whose input would be very valuable at this juncture. In addition to managing the admitted patients with uncontrolled diabetes and those who have presented with complications, every TCH should run an elaborate outpatient diabetic clinic, where the following services are available in an integrated manner:

- Laboratory services for diagnosis of the disease and its control
- Advice for control of the disease
- Early detection of complications
- Prompt and easily available services of nephrologists, ophthalmologists, surgeons, neurologists and cardiologists, as and when required
- Extended family screening of the index patient for diabetes mellitus and impaired glucose tolerance

It is proposed that a model of community out-reach programme is established through patients admitted in inpatient departments and those attending the diabetic clinics. These clinics should be used as hubs focusing on mass education, risk identification, capacity building, advocacy and prevention of the disease thereby guiding the patients, their family members and the public at large. In addition, the research departments of all these institutions should aim at epidemiological study of the disease in surrounding areas.

Keeping under consideration that diabetes is a polygenic disease, there are many questions which need to be addressed; some of these need to be probed into:

- Why there has been such a steep rise in diabetes?
- Is there anything in our food which is causing the problem?
- How our social habits have changed and what is their impact?
- How are we inherently different for getting diabetes and what genes confer this susceptibility?

All these questions need to be answered and their answers can only determine the way we combat diabetes. These are the new avenues of research and hospitals should come forward for this with a collaborative effort of their different departments.

Early screening for complications like retinopathy, nephropathy and neuropathy should be done in all diabetic patients to prevent complications and more centres in the country should be established for the training in Endocrinology to serve people at district level hospitals.⁵

Diabetes is an important cause of mortality and morbidity, and it should be managed at all levels of medical care.^{6,7} It should be particularly prevented and treated at primary care level and our GPs need to be more prepared in this regard. Hospitals should play a role in equipping the surrounding primary medical care providers with a locally relevant knowledge base for identifying high risk population, preventing diabetes and then properly managing the

disease. The liaison between general practice and hospitals needs to be reorganized, even on the initiative of the second party. Primary prevention of diabetes is a practical and cost-effective method of reducing incident diabetes in populations of varied ethnicity and biological characteristics.⁸

Reference

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