Prevention of non-communicable diseases – the time to act is now

Non-communicable diseases (NCDs) are responsible for the majority of deaths worldwide. In 2008, 36 million deaths globally (63% of all deaths) were attributed to these diseases. In South Asia, 51% of all deaths were related to NCDs in 2008, while this figure is predicted to rise to 72% by the year 2030. Majority of NCDs fall into four categories - cardiovascular diseases, cancer, chronic respiratory diseases and diabetes. In addition to being the major cause of mortality, these diseases are also a significant cause of morbidity. Therefore, prevention of NCDs are of paramount importance, considering the impact these diseases are likely to have on the health system as well as the economy of the country in general.

According to the World Health Organization (WHO), the main risk factors for NCDs are use of tobacco, physical inactivity, alcohol abuse and unhealthy diet. The WHO Global NCD action plan 2013-2020 has identified key targets for the prevention and control of NCDs. These targets are: reduce mortality from NCDs, reduce harmful use of alcohol, reduce prevalence of physical inactivity, reduce salt intake, reduce use of tobacco, reduce prevalence of raised blood pressure, halt the rise in diabetes and obesity, provide drug therapy to prevent heart diseases and provide essential medicines. Since some of these targets have common elements, they can be collated into the following four groups and can be recognized as the priority areas for interventions:

- Tobacco use
- Dietary salt intake
- Obesity, unhealthy diets and physical inactivity
- Harmful alcohol intake
- Cardiovascular risk reduction

Of these, cardiovascular risk reduction primarily involves prescribing drugs at the individual level based on the cardiovascular disease risk.
The other four areas involve lifestyle modification to reduce use of tobacco, curb excessive salt consumption, reduce alcohol intake and to promote healthy eating and regular physical activity. Bringing about lifestyle change can be a challenging task. To this end, a socio-ecological model can be used to design interventions to target the above areas. This model involves individual, interpersonal, organizational, community and society levels, which can be targeted for different lifestyle interventions. The onus of interventions targeting an individual lies with the doctor. In this regard, identification of tobacco / alcohol abuse and body mass index (BMI) screening is important. It is recommended that BMI be calculated annually or more frequently in each individual (both adults and in children)\(^2\). BMI cutoffs for Sri Lankan adults (normal: 18.5 to 22.9; overweight: 23 to 24.9; obese: 25 or above) or age-related BMI centile charts should be used to identify overweight and obesity\(^3\).

Interpersonal interventions can be targeted at families and other such small groups. Organizational level interventions can be delivered at schools and work places. Indeed, diet and physical activity interventions can be effectively delivered at work sites\(^5\). Community level interventions include developing environments promoting physical activity such as roads with sidewalks and walking paths, and promoting a healthy food environment including increased access to fruits and vegetables at an affordable price and reduced accessibility to unhealthy food. Finally, society level interventions include policy making, laws and cultural changes to promote healthy lifestyles. Examples include increased taxation for tobacco, alcohol and unhealthy foods and providing tax concessions for fruits and vegetables.

Non-communicable diseases are set to impart a heavy burden on our health care system. A collaborative effort between government, non-governmental organizations, health care workers, media, universities, schools and the general public is needed to prevent and control the emergence of these diseases. The time to act is now.

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References


surrounding tissue showed a tumour composed of numerous, complex, well-formed capillary size vascular channels (Fig. 1) lined by cells containing mild to moderately pleomorphic nuclei. The neoplastic cells were strongly positive for CD31 and CD34 (Fig. 2). Approximately 5% of the neoplastic cells expressed proliferation marker Ki-67.

The diagnosis of a well differentiated angiosarcoma of the spleen was made. Histology of the liver nodules showed a spindle cell neoplasm with morphological features of vascular histogenesis, which was confirmed by vascular markers, CD31 and CD34. CD 117 and pan cytokeratin were negative. These features were suggestive of secondary deposits from an angiosarcoma.

Discussion

Hypersplenism is associated with splenomegaly and the common causes include thalassemia major, malignant lymphoma and myelofibrosis. Vascular neoplasms of the spleen have been reported as rare causes of hypersplenism, and primary angiosarcoma of the spleen is an extremely rare cause of hypersplenism. In one series about 15% of patients with splenic angiosarcoma had thrombocytopenia. Our patient had thrombocytopenia and anaemia.

Primary angiosarcoma of the spleen is a rare and aggressive malignancy that often

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