Students' Corner
Letter to the Editor

Hypercholesterolaemia: an emerging dilemma

Madam, coronary artery disease is the leading cause of death in the western society. In the recent years however, the incidence has increased in developing countries as well. Increased incidence of obesity in some developing countries like Pakistan, due to sedentary lifestyle and poor dietary control may lead to hypercholesterolaemia which is a known risk factor for coronary artery disease and stroke.[1] Prevalence of hypercholesterolaemia is especially high in urban population of Pakistan that might be attributable to consumption of fast food and due to the same reason more than half of all deaths in developed countries are related to atherosclerotic cardiovascular diseases. Recent studies have indicated that drug treatment of high-risk individuals can reduce heart attacks by one third and related deaths by nearly 40%.[2] Although more common among Europeans, Asian population is at a much greater risk for developing coronary artery disease.[3] Dietary modification is the first line of treatment for hypercholesterolaemia and studies have shown that increasing intake of polyunsaturated fatty acids can reduce serum cholesterol as well as fatty acids.[4] Therefore, programmes are required to establish awareness among high risk population about disease prevention by dietary control and exercise. Among these groups, surveillance programmes should also be promoted and counseling be done by health workers about the possible outcomes of hypercholesterolaemia and prevention measures. In their study, Law et al evaluated that a 10% reduction in serum cholesterol in men aged 40 can result in a 50% reduction in heart disease within 5 years, while an average of 20% reduction in heart disease occurs within 5 years in men aged 70 years.[5] With this rationale in mind, health care systems can educate people through media and other means. Doctors in outpatient departments can prove to be a major influence in the demise of fatalities by counseling the patients with a family history of coronary artery disease. Media should also step up in the act by telecasting programmes that help to modify dietary habits. Especially in cooking shows, use of saturated fats should be replaced by PUFA. It has been proved that olive oil can act in concert with anti-hyperlipidaemic drugs in lowering lipid levels.[6] It's about time we realize that coronary artery disease is a grave morbidity and hypercholesterolaemia is one of its major causes. As our urban society is modernizing, more risk is being placed on our population for coronary artery disease. Therefore, authorities should take to task this slow poison before it overwhelms our healthcare.

Faizan Shaikh, Muhammad Mujib Zubair
4th Year Students, Dow Medial College, Karachi.

References

1. WHO - Familial Hypercholesterolaemia must be treated to prevent coronary artery disease. (Online) 1998. (Cited 1998 Sept 4). Available from URL: http://www.who.int/inf-pr-1998/en/pr98-62.html.
2. Ezzati M, Lopez AD, Rodgers A, Vander Hoom S, Murray CJ, Comparative Risk Assessment Collaborating Group. Selected major risk factors and global and regional burden of disease. Lancet2002; 360: 1347-60.
3. Anand S, Yusuf S, Vukan V, Devenesen S, Teo KK, Montague PA, et al. Differences in risk factors, atherosclerosis, and cardiovascular disease between ethnic groups in Canada: the Study of Health Assessment and Risk in Ethnic groups (SHARE). Lancet 2000; 356: 279-84.
4. Swierczy?ski J, Wo?yniec W, Chmielewski M, Rutkowski B. Molecular mechanism of fatty acids impact on plasma lipid profile (part I)]. Przegl Lek 2007; 64: 37-41.
5. Law M R, Wald N J, Thompson S G. By how much and how quickly does reduction in serum cholesterol concentration lower risk of ischemic heart disease? BMJ 1994; 308: 363-6.
6. Sánchez-Muniz FJ, Bastida S, Gutiérrez-García O, Carbajal A. Olive oil-diet improves the simvastatin effects with respect to sunflower oil-diet in men with increased cardiovascular risk: a preliminary study. Nutr Hosp 2009; 24: 333-9.