Editorial

Silent Killers

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"*Diseases the doctor says you have got.!*"

'Silent killer diseases' are diseases that produce minimum or no symptoms and are capable of causing death if not treated. Only after the damage is done, people realise the gravity of the situation. Maintaining a good diet and investing in wholesome lifestyle practices is what determines overall health. Smoking and obesity are important risk factors for silent killer diseases such as hypertension, heart disease, obstructive sleep apnoea (OSA), and cancers.[1]

Hypertension, heart disease, and diabetes have been known as major silent killer diseases. OSA, osteoporosis, and cancer as a group are the big silent killers that we are unaware of and need to create awareness about.

The reason why high blood pressure (BP) is considered to be a silent killer is that it arises with no particular symptom. It can be present for many years without even minor symptoms. This impacts the heart and the arteries, which makes a person prone to serious cardiovascular diseases such as ischaemic heart disease, heart failure, and strokes. The only way to detect is to measure it at regular intervals. Sometimes, the clinic BP remains normal, this is known as masked hypertension, the reverse scenario of white-coat hypertension, where patients have normal BP levels in out-of-office settings but hypertension on clinic measurements. Kawano *et al*.[2] have identified three subtypes of masked hypertension to include a 'morning surge' hypertension, daytime or 'worksite' hypertension, and night-time or 'nocturnal non-dipper' masked hypertension. These subtypes and their clinical presentations have important implications for hypertension treatment and control. All these need to be taken care of. Undiagnosed hypertension can present for the 1st time with a crisis that may be life-threatening or cause irreversible damage namely – cerebrovascular stroke, myocardial infarction, left ventricular failure, kidney failure, aortic dissection, eclampsia during pregnancy, or retinal damage.[3]

Coronary artery disease often develops over decades and may be asymptomatic until a complete blockage occurs and presents in the emergency department as an acute coronary syndrome or causes sudden cardiac death. About half of ischaemic heart disease symptoms are mistaken for less serious problems. Silent myocardial infarction symptoms can be so brief; they often get confused for regular discomfort and are thus ignored with an increased risk of dying.

'Sneaky' and 'Silent' are the two adjectives healthcare providers use when talking about type 2 diabetes. Symptoms may be absent, mild, or non-specific initially. The increasing prevalence of overweight/obesity and unhealthy lifestyles contributes to its development, with 57% of patients remaining undiagnosed. Many individuals are accidentally detected when they are tested for some other reasons like preoperative investigations, during evaluation for insurance, or in health check-up camps. Diabetes leads to multi-organ complications, broadly divided into microvascular and macrovascular complications. Silent death due to unsuspected heart attack in type 2 diabetes is common in India. Late detection of renal involvement due to type 2 diabetes also kills many people. Unsuspected foot ulcers with a lack of care kill many. Early development of dimness of vision due to cataracts and lost vision with retinopathy, vitreous haemorrhage is also a feature of type 2 diabetes. Sometimes patients may present for the 1st time with Sepsis or Diabetic coma.[4]

OSA is a severe sleep disorder that can lead to loud snoring, followed by apnoeic spells and arousal. Obesity with increased neck circumference increases the risk and incidence of OSA. These patients are prone to hypertension and ischaemic heart disease and are vulnerable to sudden deaths and stroke during sleep due to the sympathetic stimulation that occurs during the apnoeic spells.[5] Most people with OSA are unaware of the disorder. OSA may present as extreme daytime fatigue, maintaining alertness,

involuntary periods of dozing off, trouble concentrating, irritability, and mood disturbances. Several questionnaires that evaluate snoring frequency, self-reported apnoea, and daytime sleepiness can facilitate OSA screening. In the study entitled 'Polysomnography in patients of Metabolic Syndrome' by Dr. Amol Ramteke and Dr. Radha Munjey et al.[6] published in this issue of VJIM; OSA was found in 72% patients of with Metabolic Syndrome; with 42% having mild sleep apnoea, 22% moderate sleep apnoea and 8% severe sleep apnoea.

Osteoporosis is a bone disease making the bones weak and brittle, the affected individual is often unaware of his or her condition, as it shows no signs or symptoms whatsoever, until of course they undergo a fracture and get the diagnosis. This is why it is also called a silent killer. Osteoporosis causes bones to become weak and brittle; therefore, even minor trauma or mild stress can cause a fracture. Hence we need to prioritize the improvement in bone health. Oestrogen deficiency in postmenopause women or decreased levels of testosterone in men, in addition to Calcium and Vitamin D deficiency can lead to excessive bone resorption accompanied by inadequate bone formation. Osteoporosis besides affecting the density of the bones also impacts oral health. When the jawbone becomes less dense, teeth become loose, and periodontitis sets in. This may end up in nutrition issues as well.[7,8]

India ranks third among nations in terms of the highest number of Cancers.[9] Over 13 lakh people in India suffer from cancers every year, as per the National Cancer Registry Programme report. Sedentary lifestyles, and an increase in urban pollution, in addition to the rise in obesity, tobacco, and alcohol consumption, are said to be the reasons behind the rise. The most common forms of cancer affecting the people of India are breast cancer, cervical cancer, and oral cancer. Cervical cancer is due to human papillomavirus (HPV) infection. Early vaccination and screening can prevent the disease. With early diagnosis, cancers can be successfully treated. Tobacco, betel leaf, and alcohol consumption as well as HPV infections are said to increase the risk of oral cancers. Smoking causes 87% of lung cancers. Patient delay can be a major factor behind late diagnosis; many patients are unaware of (or ignore) the symptoms of cancer and health literacy, cultural attitudes toward seeking medical care, fear and embarrassment of a cancer diagnosis, and difficulties navigating the health-care system all play a part in late diagnosis and treatment.[9,10] Clinicians need to be familiar with the available Next Generation Sequencing (NGS) molecular diagnostics that can help in delivering targeted personalised treatment protocols leading to optimal cancer outcomes.

Like hypertension, CAD, and diabetes; OSA, breast, and colorectal cancers are also associated with overweight and obesity, lower levels of physical activity, and sedentary lifestyles. Hence, effective lifestyle modification, stopping the consumption of tobacco and alcohol along with regular health screening at both, individual and population levels are the need of the hour to curb the silent killer epidemic in India.

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