Introduction
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Stroke is defined as a sudden onset of non convulsive focal neurological deficit (or global) and lasting for more than 24 hrs\textsuperscript{1}

Stroke is the third leading cause of death worldwide and accounts for 10-20\% of deaths in industrialized countries\textsuperscript{2}. Worldwide, about 20 million people suffer from stroke each year, 5 million die as a consequence and 15 million will survive, of those, who survive, 5 million will be disabled by their stroke \textsuperscript{3} Therefore, the global burden of stroke needs to be defined for the developed and the developing nations. For example, it is estimated that approximately 4.5 million Americans are currently living with the effects of stroke, and that every year another 570,000 will survive a stroke that will result in disability.

Global Burden of Diseases (GBD) Study,\textsuperscript{4} in 1990, reported 9.4 million deaths in India of which 61,900 were from stroke and the disability adjusted life years (DALYs) lost almost amounted to 28.5 million- nearly six times higher than that due to malaria. When these estimates were projected for the year 2020, Murray and Lopez reported that 61 million DALYs are likely to be lost due to stroke, of these 52 million (84\%) will be in the developing countries.\textsuperscript{5}
Reddy and Yusuf have reemphasized the “Health Care and Economic Consequences” of emerging epidemic of cardiovascular diseases in developing countries.\(^6\)

India will face an enormous socio-economic burden to meet the costs of rehabilitation of “stroke victims” because the population is now surviving through the peak years (age 55-65) of occurrence of stroke (CVD).

However, for stroke prevention planning, reliable epidemiological information on pattern of disease and exposure to major risk factors and morbidity and mortality trends for CVD in defined populations is not available. Recent community surveys for “hemiplegia” presumed to be CVD, identified 320 cases in 145,456 persons, indicating an overall Crude Prevalence Rate (CPR) of 220 per 100,000 persons.\(^7\) Another recent survey on 20,842 rural residents in East India report a CPR for stroke in elderly (age 41-60 yrs) at 540/100,000.\(^8\)

Furthermore in two prospective stroke studies, during the period 1963-1968 and 1978-1982 in Mumbai, using identical methodologies, it was observed that there was a significant drop in case fatality rate (32% to 12%) thereby resulting in a higher survival (68% to 88%) but with residual disability. Thus, these changing trends have posed a major social challenge in occupational
rehabilitation and in solving the needs for stroke survivors. These data suggest that India is already facing “Stroke Epidemic.”

In addition, published reports suggest that CVD occurs at all ages in both sexes and with increasing frequency with advancing age. Prospective studies on acute stroke have shown that hypertension, diabetes mellitus, low normal hemoglobin and tobacco use (smoking/chewing) are important risk factors.

Hastak, et al (2003) reported that at 28 days the overall case fatality rate was 9% and nearly 31% of survivors had severe neurologic disability/handicap whereas 13% had mild disability needing assistance. Only 47% of survivors were independent at the end of 28 days, here 17% were not aware of having hypertension. Though such information being selective does not represent stroke morbidity/mortality patterns but it does show the current trends in DALYs in stroke population in the respective communities.

Thus to design stroke prevention strategies, public awareness and health education on warning symptoms of hypertension and Transient Ischemic Attacks (TIAs) by media is optimal. Lifestyle changes, dietary habits and intensive campaign against tobacco use will prove rewarding. Primary health care teams should receive training on nomenclature and in bedside diagnosis, in the absence of CT facilities in rural and remote areas. Mass screening surveys to
identify "hypertensives" and "stroke prone" subjects, wherever feasible, should be undertaken.

Overall 85-90% are ischaemic and 10-15% are haemorrhagic.\textsuperscript{15,16} In India so far two studies have been done regarding stroke, revealing an incidence of 13-33 per 100,000.\textsuperscript{17} The highest Crude Prevalence Rate of hemplegia presumed to be due to stroke has been seen in Mumbai (Parsi community) 943 per 100,000.\textsuperscript{18}

Various modifiable and non-modifiable risk factors like age, race, gender, genetic factors and hypertension, dyslipidemia, diabetes, ischaemic and valvular heart disease predispose to stroke.

Physiological derangement, such as high blood pressure, hyperglycemia, pyrexia and intracranial hypertension, is common in acute stroke and associated with poor outcome.\textsuperscript{19} There is now a worldwide interest in trying to reduce poor outcomes after stroke through effective management of these conditions.

Hypertension is a major risk factor in all races, both sexes and all age groups for stroke. The risk of stroke in a patient with diastolic blood pressure $>110$ mm of Hg is fifteen fold than that of a patient with diastolic pressure of $<80$ mm of Hg.\textsuperscript{20} Other risk factors that could indirectly influence the prevalence of stroke in a population are
lack of awareness of primary hypertension and access to health care Asians have higher incidence of stroke as compared to whites.\textsuperscript{21}

The disease most commonly occurs in middle and later years of life with males making up about 61\% of the stroke cases and most cases occurred in winters about 63\% of the total. Majority of the patients get admitted with a definite history of focal neurological deficit (76.1\%), comatose (32.6\%), and 16.2\% had a previous history of Trans Ischaemic Attack. In a study, amongst the risk factors hypertension was the commonest (71.3\%), ischaemic heart disease (12.6\%), diabetes mellitus (9.2\%), valvular heart disease (4.3\%) and pregnancy (1.7\%).\textsuperscript{22}

Acute stroke, whether due to infarction or hemorrhage is associated with hypertension in 75\% of patients, of whom 50\% have a previous history of high BP. Early hypertension is associated with a poor outcome,\textsuperscript{23-25} particularly in patients with impaired consciousness.\textsuperscript{26} Evidence is now accumulating that low systolic blood pressure is also associated with a poor outcome; as a result, a ‘U-shaped’ curve appears to relate outcome and BP with the best outcome observed in normotensive and mildly hypertensive patients.

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Manipulation of blood pressure in stroke may improve outcome.\textsuperscript{27} Despite various studies, data on the prognostic significance of early BP in stroke remains unclear. BP values may
not reliably reflect any impact of BP on stroke outcome. They also suggest a potential differential effect of BP manipulation, increasing or decreasing BP may be beneficial for patients with BP extremes in one direction, but detrimental for those with BP values in the opposite direction.27

A spontaneous increase in BP is common in the setting of acute ischemic stroke in humans.28-31 The optimal management of elevated BP pressure, which may be labile, is still a common clinical concern in a patient presenting with cerebral infarction. Neurological deterioration has been frequently associated with the use of antihypertensive agents.32-39

Despite early reports of improved outcome in patients with ischemic stroke treated with induced hypertension,40-42 this practice has been confined to a handful of stroke units, and results have been rarely reported. Induced hypertension in acute stroke may be associated with adverse effects such as hemorrhage into infarct, cerebral edema, and myocardial ischemia in the patient with concomitant atherosclerotic coronary artery disease. Despite these concerns, induced hypertension is now recommended to improve cerebral perfusion in the treatment of cerebral ischemia due to vasospasm after SAH and in maintaining cerebral perfusion pressure in patients with posttraumatic brain edema.
After SAH, hypertension can produce clinical improvement with minimal and acceptable systemic toxicity. In such patients induced arterial hypertension increases Cerebral Blood Flow (CBF) and can improve vasospasm related ischemic neurological deficits. Recent data from PET and MRI studies in patients with ischemic stroke combined with clinical observations suggest that a particular situation may exist in some acute stroke patients.

Blood pressure is frequently elevated early after acute stroke, an observation most commonly thought to be explained by mental stress, previous hypertension, increased catecholamine secretions or a multitude of several factors. Guidelines for the management of acute stroke suggest this increase in BP should not be treated, as it generally declines after a few days. Pharmacological intervention is only recommended in patients with extremely high BP values, and caution is required to avoid excessive BP drop. One concern with lowering BP in the acute phase of ischemic stroke is that it may further compromise any critical perfusion in the area of tissue at risk for cerebral infarct.

Cerebral perfusion pressure, a function of systemic BP and intracranial pressure, is one of the factors determining the final infarct volume. Conversely, very high BP may enhance infarct related edema or induce hemorrhagic conversions of an infarct.