Chapter 11

Stroke in Geriatric Population

Pradeep Kallollimath

Dharwad Institute of Mental Health and Neurosciences (DIMHANS), India

ABSTRACT

This chapter describes how a stroke or ‘brain attack’ occurs when blood circulation to the brain fails. Although first recognized 2400 years ago by Hippocrates, the father of medicine, advances in treatment are made only in the last few decades. After a stroke, 8 out of 10 patients develop paralysis on the side of the body opposite the side of brain damaged. There are other symptoms to look for such as drooping of face to one side, slurred or confused speech, sudden visual disturbance, sudden giddiness and imbalance or sudden severe headache. Incidence of stroke increases with age and elderly people are more likely to have more severe stroke. In addition, elderly people will have multiple comorbidities which make management more difficult. After a disabling stroke, easing back to life requires a positive attitude to overcome difficulties. A physiotherapist can help restore the strength and reduce stiffness of muscles. Regular follow up with a physician or neurologist, taking medicines as prescribed is important to improve the outcome and prevent the recurrence of stroke.

INTRODUCTION

Stroke is defined by WHO as “rapidly developing clinical signs of focal cerebral dysfunction, with symptoms lasting 24 hours or longer, of vascular origin” (WHO Project Investigators, 1988). It is a huge public health problem because of its high morbidity and disability. Stroke is the second commonest cause of mortality after coronary artery disease. Prevalence in India is about 200/lakh population. 17 million people experience stroke each year. 6 million of those strokes will be fatal. Every six seconds, someone dies from a stroke. Stroke is the second commonest cause of mortality after coronary artery disease and is responsible for more deaths annually than those attributed to AIDS, tuberculosis and malaria combined. The frequency of stroke increases significantly in elderly due to age, increased prevalence of risk factors like diabetes, hypertension, cardiac diseases and carotid disease. Furthermore strokes in elderly are more severe, especially in women. Larger proportions of strokes are cardioembolic which have worse prognosis. Recovery and rehabilitation after stroke in elderly requires prolonged time. (Emma, Phillip., & Christine 2017; Saposnik et al., 2008)

Stroke in Geriatric Population

Types of Stroke

There are two broad categories of stroke. Ischemic stroke occurs when arteries are blocked by blood clots or fatty deposits. About 85% of all strokes are ischemic. Hemorrhagic stroke occurs when the blood vessel in the brain ruptures leaking blood into the brain. Hemorrhagic strokes account for 15% of all strokes. (Figure 1)

Classification of Acute Stroke

1. Ischemic stroke
   a. Atrial fibrillation (17%)
   b. Carotid disease (4%)
   c. Other (64%)
2. Hemorrhagic
   a. Aneurysmal (4%)
   b. Hypertensive (7%)
3. Others (4%)

Risk Factors for Stroke

Everyone has some stroke risk. Some risk factors are beyond our control like age, gender, race, family history etc. But other risk factors can be modified. These are: Hypertension, diabetes mellitus, dyslipidemia, carotid artery stenosis, cardiac disease, prior history of stroke, obesity, cigarette smoking, and alcohol consumption.

Figure 1. Stroke subtypes and incidence