ABSTRACT

The purpose of this study was to identify the risk factors for stroke and their relative importance. For this purpose Military and General hospitals were selected at random from public sector hospitals of Rawalpindi city. 277 patients were selected during the period of Feb to Jul 2008. A hospital based case-control study of 277 patients with 215(77.6%) cases (163 ischemic & 52 hemorrhagic) and 62(22.4%) controls was carried out and among them 169(61%) were male and 108(39%) were female. Data was collected through well-designed and stractured questionnaire. The age ranged wasl4 to 95 years (mean age, 55.45± 18.55 years). Data was analyzed as a socio-demographic risk factors and clinical risk factors for each bifurcated groups of male, female, postmenopausal females and for overall patients. In descriptive section, count and percentages were studied while in analytical section, bivariate analysis, multiple logistic regression model and probability of predicted risk of disease were used to get the degree of association between risk factors and stroke. In overall model, it was found that three socio-demographic risk factors and six clinical risk factors were significantly contributing risk factors to develop stroke. These factors were age (OR=1.045,p=0.000), disturbed home environment (OR=l . 87O,p=0. 048), sedentary living style (OR=1 .731 ,p=0.00 hypertension (OR=59.570, p=0.000), diabetes mellitus (OR=5.163 ,p=0.001), cholesterol level (OR=12.1 13, p=0.000), smoking (OR=5.137,p=0.002), heart diseases (OR=l 1 .6 and central nervous system infections (OR=7.580,p=0.009). Among symptomatic factors headache (OR=8.594,p=0.000), weakness (OR=77.423,p=0.000), aphasia (OR=4.983, p=0.006) and coma (OR=9.310,p=.0001) were found significant in stroke-related disability. In the predictive male patients model, almost same risk factors were significant except disturbed home environment and central nervous system infections. In the predictive female patients model, except disturbed home environment, sedentary living style and smoking almost same risk factors as described above were found to be significant. In the predictive model for postmenopausal female edu(OR=0.l disturbed home environment (OR=5.815,p=0.044) were found significant among social-demographic risk factors and hypertension, diabetes mellitus and heart disease were also found significant among clinical risk factors. The study concludes that hypertension, diabetes mellitus and heart diseases were found to be the strongest significant risk factors to develop stroke.