European Stroke 2020: Association of socioeconomic status with incident stroke: does it vary with different measurements of SES?

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BACKGROUND: Few studies have investigated impacts of different measurements of socioeconomic status (SES) on incident stroke simultaneously and gender differences in the impact.

METHODS: We examined data from the Anhui cohort of 2,852 participants aged ≥60 years who were followed up for 10 years and from the four-province cohort of 3,016 older people who were followed up for 3 years. Their SES and risk factors were recorded at baseline, and cases of incident stroke were documented from follow-up interviews and cause of death.

RESULTS: In the Anhui cohort, participants living in rural versus urban areas had increased risk of incident stroke (fully adjusted hazard ratio 2.49, 95% CI 1.19-5.22; women 3.64, 1.17-11.32, and men 2.23, 0.81-6.19). Levels of education, occupation and satisfactory income and financial problems over the past two years were not significantly associated with incident stroke, except increased stroke in women with low education and high satisfactory income. In the four-province cohort, these five SES measurements were not significantly associated with incident stroke (except increased stroke in men with high occupation), but additional measurements showed increased stroke in women with low personal income and in men with high family income. Pooled data from the two cohorts demonstrated an increased risk of stroke in participants living in rural (1.66, 1.08-2.57) and having high occupational class (1.56, 1.01-2.38), with no gender differences, and in women with low education (2.26, 1.41-3.63).

CONCLUSIONS: Rural living and being female with low SES are main factors contributing to stroke risk inequality in China. Strategies to improve health care access in the rural communities and gender specific targets for health inequality should be an integral component of stroke interventions.

Keywords: Socio-economic status, Urban-rural, Stroke, Incidence, Older people

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