mortality than patients not taking naps (40.5% vs. 29.2%, P=0.001). In addition, the results of cox regression analysis showed that daytime napping duration $\geq$30min/day (HR 1.489, 95% CI 1.070-2.073, P=0.018) were significantly associated with cardiovascular mortality.

CONCLUSIONS Our results indicated that prolonged daytime nap might be a risk for cardiovascular mortality. However, further research is required to clarify the mechanism.

GW28-e0839

The association between percent decline in homocysteine and risk of stroke: a post-hoc analysis of the China Stroke Primary Prevention Trial (CSPPT)

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OBJECTIVES We aim to examine whether a change in homocysteine (Hcy) levels is associated with risk of stroke in a post-hoc analysis of the China Stroke Primary Prevention Trial (CSPPT).

METHODS A total of 16,867 participants with Hcy measurements at both baseline and exit visit in the CSPPT were included in the current analysis. The primary outcome was first stroke. The secondary outcome was a composite of cardiovascular events consisting of cardiovascular death, myocardial infarction (MI) and stroke. The percent decline in Hcy was calculated as [(baseline Hcy-exit Hcy) / baseline Hcy *100].

RESULTS Over the median treatment duration of 4.5 years, participants with a stroke occurrence had a significantly lower percent decline in Hcy (β=-5.7; 95%CI: -8.8,-2.6). Consistently, a 20% Hcy decline was associated with a reduction in stroke risk of 7% (HR, 0.93; 95%CI: 0.90-0.97). When percent decline in Hcy was assessed as tertiles, a significantly lower stroke risk was found in those in tertiles 2-3 (HR, 0.79; 95%CI: 0.64-0.97) compared with participants in tertile 1. Similar results were observed for the composite of cardiovascular events outcome. The beneficial effect associated with higher Hcy reduction were consistent in a stratified analysis with the subgroups age, sex, treatment group, *MTHFR* C677T genotypes, serum folate and Hcy levels.

CONCLUSIONS Percent decline in Hcy was significantly associated with a reduction in stroke risk in adults with hypertension. Hcy reduction can be considered a reliable biomarker as an indicator of the beneficial effect of folic acid therapy on stroke prevention.

GW28-e0870

Application of Self-efficacy Theory to Improve Medication Adherence in Hypertensive Patients: an Intervention Study

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OBJECTIVES To investigate whether the intervention of self-efficacy theory can help improve the self-efficacy, medication adherence, and blood pressure control in hypertensive patients.

METHODS A total of 596 hypertensive patients were recruited from 8 community health service centers in Shunyi District, Beijing. The community health service centers were randomly divided into 2 groups. The intervention group finally had 299 subjects and the control group had 297. Intervention were carried out for 6 months, including two health education group activities designed; while the control group was routinely managed. Both of the groups had the same questionnaire and physical examination at baseline and the end of the 6 months' intervention; In the study, the self-efficacy and medication adherence of the patients were respectively evaluated using the 13-item Medication Adherence Self-Efficacy Scale (MASES) and the 8-item Morisky Medication Adherence Scale (MMAS-8).

RESULTS (A) Status of self-efficacy, medication adherence and blood pressure control

The average score of medication adherence self-efficacy was 3.39 $\pm$ 0.74 (total score of 4 points, intervention group: 3.43 $\pm$ 0.72; control group: 3.34 $\pm$ 0.76) and the average medication adherence was 6.32 $\pm$ 1.90 (8 points, intervention group: 6.36 $\pm$ 1.85; control group: 6.28 $\pm$ 1.96). The proportion of patients with high, medium and low drug adherence were respectively 34.2%, 35.6% and 30.2% (intervention group: 34.1%, 37.5% and 28.4%; control group: 34.3%, 33.7% and 32.0%). The ratio of good blood pressure control was 63.1% (64.9% in the intervention group and 61.3% in the control group). There were no significant differences between the two groups.

(B) Analysis of main intervention effect and influencing factors

After intervention, the self-efficacy of the patients in the intervention group increased to 3.52 $\pm$ 0.63 (P<0.05), the medication adherence score increased to 7.15 $\pm$ 1.41 (P<0.01), and the proportion of patients with high and medium medication adherence increased to 51.5 % and 35.9% (P<0.01). With the difference on those unbalanced factors (age, sex, education level and baseline diastolic blood pressure) controlled, we compared the intervention group and the control, and it was found that the difference of medication adherence in the intervention group was greater than that in the control group (β= 0.246; P<0.05), that is, the increase of the score in the intervention group was more obvious; and the scores improved on emotional and physical state in the intervention group was higher than control group (B= 2.495; P<0.05); while the changes in the medication self-efficacy had no significant differences. At the same time, it was found that the more self-efficacy increased, the more medication adherence was also increased.

And we found that the intervention effect was different in different people, the older people(β= 0.151; P<0.01) or those with lower self-efficacy at baseline(β= -0.699; P<0.01) or people from lower income family(β= -0.107; P<0.05) had higher improvement in the self-efficacy. And those with greater improvement on self-efficacy also had higher increase of medication adherence (β= 0.151; P<0.01).

CONCLUSIONS (1) In this study, hypertensive patients' adherence and self-efficacy of medication are at a high level. (2) In this study, the intervention based on self-efficacy theory effectively improved the patient's medication adherence, and there was no significant effect on improving the self-efficacy of medication.