THE EFFECT OF INTENSIVE EDUCATION IN PREVENTING RECURRENT VASOVAGAL SYCNOPE

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**Background:** Although vasovagal syncope is common cause of syncope, treatment for vasovagal syncope has been not well established. We assessed the hypothesis that the efficacy of intensive education is as effective as that of conventional treatment.

**Methods:** A total of 2024 subjects with syncope episodes underwent head-up tilt test (HUT) from Jun 2007 to Oct 2009. Among 2024 subjects, 422 subjects were diagnosed with vasovagal syncope by HUT. The enrolled subjects were divided into group 1 with only intensive education (213, 50.5%) and group 2 received medication plus intensive education (209, 49.5%); beta-blocker(132, 63.2%) and midodrine (71, 34%). All patients were provided to intensive education regarding supine position at the onset of symptom, avoidance of triggering event, and lifestyle modification. All subjects were interviewed with telephone or visited regularly at outpatient clinic during a mean follow-up of 2.4 years.

**Results:** Gender, heart failure, diabetes, trauma severity, and the frequency of syncope were not different between two groups (all p values >0.05). However, group 2 was older (37.73 vs 46.94 years old, p=0.001), had more hypertension (5.6% vs 29.7%, p=0.001), coronary disease (1.4% vs 8.1%, p=0.001) and old stroke (0.5% vs 5.7%, p=0.002) than group1. During a follow-up of 2.4±0.8 years, the number of syncope episodes after treatment reduced from 2.2±1.90 to 0.2±1.1 episodes in group1 (p=0.001), and from 2.0±1.9 to 0.2±0.6 episodes in group 2 (p=0.001). In univariate analysis, syncope recurrence after treatment was related to young age (42.8±18.5 vs 36.5±15.4 years old, p=0.03) and more previous syncope episodes >4 (5.2% vs 17.1%, p=0.03). However, types of treatment were not associated with syncope recurrence (p=0.59). In multivariate regression analysis with propensity score, young age <45 (OR 2.35, 95% CI 1.11-4.99, p=0.02) and previous syncope episodes >4 (OR 3.39, 95% CI 1.29-8.89, p<0.01) were independent predictors of syncope recurrence, and treatment strategy was not associated with syncope recurrence.

**Conclusions:** The efficacy of intensive education as treatment of vasovagal syncope recurrence was not different from that of conventional medical treatment.