CVS-13 Genetic linkage of beta and gamma subunits of epithelial sodium channel to systolic blood pressure in southern Chinese

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Background: Mutations of the genes encoding beta and gamma subunits of the epithelial sodium channel (SCNNIB and SCNNIG) has been found to cause increased or decreased channel function, which leads to development of rare, salt-dependent hypertension or hypotension respectively. Both of these two genes are located on chromosome 16p12. Other DNA variants in or around these genes may contribute to the variation in blood pressure. The objective of the study is to evaluate the genetic linkage between blood pressure and the epithelial sodium channel genes (SCNNIB and SCNNIG) in Southern Chinese.
Methods: Sixty families were recruited from the general population of southern Chinese. Each family comprised of various numbers of siblings. All participants had their blood pressure measured and were genotyped at chromosome 16p12 by use of three highly polymorphic microsatellite markers. Sibling pairs with different allele-sharing assessed by identity-by-state (IBS) were grouped to compare their blood pressure difference.
Results: The mean systolic and diastolic blood pressure difference between all sibling pairs was 16.5 and 11.0 mmHg respectively. At the D16S420 locus, the difference in systolic blood pressure between siblings that shared two alleles according to IBS (n=38, 11.9 ± 10.6mmHg) was significantly lower than siblings that shared one allele according to IBS (n=70, 19.3 ± 18.0mmHg, p=0.02). Difference in systolic blood pressure in other two loci D16S403 and D16S417 were not significant. In all three loci, difference in diastolic blood pressure was not significant between the sibling pairs.
Conclusion: The SCNNIB and SCNNIG genes and chromosome region 16p12 are implicated in the physiological variation of systolic blood pressure among southern Chinese. The findings may contribute to the understanding of salt-sensitive hypertension in Southern Chinese.

CVS-14 Public knowledge in Hong Kong towards cardiopulmonary resuscitation

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Introduction: Prompt delivery of cardiopulmonary resuscitation (CPR) substantially improves the prognosis of out-of-hospital cardiac arrest (OHCA) victims. In spite of this, the rate of bystander-initiated resuscitation is appallingly low. Therefore, we conducted a study to evaluate the general knowledge of basic life support in Hong Kong and to identify areas of improvement.
Method: This was a cross-sectional descriptive study (n=357) conducted in a standardized interview format via telephone using a structured and fixed-alternative (multiple-choice) questionnaire. The survey was designed to assess general knowledge under a proposed scenario, and experiences regarding CPR training in Hong Kong.
Results: We found that (1) CPR knowledge in Hong Kong was poor with approximately 12% of the population having received any form of training; (2) CPR knowledge even among the previously trained is far from satisfactory; (3) knowledge with regard to circulatory maintenance in basic life support was weakest; (4) the commonest reason for not taking CPR training was due to a lack of spare time.
Conclusions: The degree of citizen preparedness in initiating CPR is very poor. There is an urgent need to raise public awareness towards the importance of basic life support. In addition, intensified educational efforts and investigations of new approaches to improve this first stage in the chain of survival are warranted.