

ANTECEDENT RISK FACTORS AND THEIR CONTROL IN YOUNG PATIENTS WITH A FIRST MYOCARDIAL INFARCTION

Dear Sir,

I read with great interest the recently published study by Drs Chan et al⁽¹⁾ on which they should be congratulated. However, I have some important issues to raise.

Firstly, the authors stated in their introduction that the “median age (of Singapore Nationals) is 34.9 years with 9.5% of the population under the age of 45”. I wonder how the 50th percentile for age is 34.9 and only 9.5% below age of 45!

Secondly, in their Methods section, the authors mentioned on performing the t-test if the assumptions of normality and equality of variance were satisfied. Otherwise, they used the Mann-Whitney U test. I wonder whether these tests were used. Neither the tables nor the text proved its use. I would also add that if the assumption of using a parametric test to compare means is violated, one should try first to normalise this variable before resorting to any less robust non-parametric tests. Also, in the Methods section, the authors did not establish the criteria for diagnosing hypertension and diabetes mellitus.

Thirdly, would it be elegant if the authors included other simply measured risk factors such as obesity or central obesity? Cooppan⁽²⁾ mentioned that Asians have a lower body mass index (BMI) and waist circumference but could still have insulin resistance and metabolic syndrome. Metabolic syndrome is a well-established risk factor for the development of coronary artery disease⁽³⁾. Because of the difference in BMI and waist circumference between Asian and Americans, the World Health Organisation (WHO) modified the BMI cut-off for obesity in Asians to greater than 23 kg/m²⁽⁴⁾. Similarly, the International Diabetes Federation (IDF) recently published consensus cut-off points for waist circumference that are more ethnic specific and acknowledged that more data are needed to link these levels to risk⁽⁵⁾.

Fourthly, Table I actually tells us more than just demographical data. Unfortunately, the myocardial infarction (MI) risk factors had not earned enough interest for comment from the authors in the Results section. The odds-ratio (OR) of hypertension and diabetes mellitus tells us that young MI patients have almost half the risk to be hypertensive or diabetic compared to the old MI patients; a piece of knowledge that one could not disregard. Surprisingly, the authors interpreted what they disregard displaying in the table or text: the percentages of those untreated from hypertension, diabetes mellitus, and hyperlipidaemia for both age cohorts, the matter which exposed the reader to ambiguity in understanding the OR mentioned in the Results. I tried to calculate the OR for being left untreated for the aforementioned diseases versus those treated in both age cohorts from Fig. 1. Unfortunately, percentages were not displayed on the figure and I failed to have the exact figures shown in the Results. Actually, the authors could substitute Table II by a table showing these percentages and OR for each variable, especially when Fig. 2 was enough to show the percentage of those having 0-5 risk factors. I also wish to ask whether the untreated cases of MI risk factors were basically diagnosed? Similarly, were the treated cases controlled?

Finally, the authors stated in the Results that “most patients had at least one antecedent risk factor with only 96% of the younger group and 92% of the older group having at least one antecedent risk factor”. I wonder if this is a syntax redundancy or the authors meant to say that “most patients had at least one antecedent risk factor with only 4.3% of the younger group and 8.2% of the older group having none of these risk factors”.

Yours sincerely,

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