


Answer to letter to the editor regarding the article “Asian ethnicity: a risk factor for adhesive capsulitis?”

Carta resposta referente ao artigo “Etnia Asiática: um fator de risco para a capsulite adesiva?”

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Adhesive capsulitis affects 13.5% of the patients seeking care from a specialist shoulder orthopedist, making up the second most frequent diagnosis after rotator cuff disorders.¹ However, its cause is still unknown. Much of the research on the subject focus on the risk factors for disease development. Ethnic influence is little studied as a factor involved in the development of adhesive capsulitis. White ethnicity² and birth in the British Isles³ have already been described as risk factors, but information on the other ethnicities is lacking in the literature. Our study⁴ aims to help filling such gap.

We agree with some of the criticisms received. The study was referred to as transversal to emphasize that the patients were evaluated at a single time, transversely, instead of retrospectively or prospectively. However, the most adequate terminology, consistent with all statistical analysis, would be case control. We evaluated whether the presence or absence of disease (adhesive capsulitis) is related or not to exposure (Asian ethnicity or otherwise), correcting the odds ratio for possible confounding factors through a logistic regression. In addition, the purpose of the study was not to assess the prevalence of the disease, but rather the risk of developing it from exposure. It should be emphasized that the risk factor temporality is subject to controversy when choosing between a cross-sectional (defining the prevalence ratio) or a case-control design (defining the odds ratio). Since

the studied factor (ethnicity) is intrinsic to the individual and present from birth, both designs were considered possible.

Moreover, we agree that some forms of statistical analysis may overestimate the differences between groups. However, this would be especially worrisome if the risk was marginal, not robust as demonstrated by our data. An analysis using prevalence ratio instead of odds ratio would reduce the uncorrected risk from 4.2 to 3.6, which is still higher than the one reported for hypothyroidism,⁵ hyperthyroidism,⁶ birth in the British Isles, and in some studies on diabetes.^{3,7} Finally, we emphasize that the methodology used in our study (logistic regression and odds ratio exposure) is similar to the one reported by Wang et al³ in an article published in the Journal of Shoulder and Elbow, the most prestigious publication in the field of shoulder and elbow surgery.


As such, despite the limitations inherent to observational studies, we are convinced that the Asian ethnicity should become part of the risk factors to be considered in a patient with joint pain and shoulder stiffness.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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