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## Letter to the Editor

### Risk factors for amputation: A local concern in Brazil?



Chronic critical ischemia of the lower limbs with the respective functional loss, continues to be a major public health problem, particularly in developing countries and patients with diabetes. Despite advances in diagnostic methods and innovations in endovascular treatment, amputation is still common, with great psychosocial impact. It is known that the variables associated with amputation can be different according to the ethnic group, sex, and geography [1].

The study by Mantovani et al. [2] is interesting and adds important data to what we know about amputation and risk factors in patients with diabetes mellitus in Brazil. This study [2] assessed the risk factors for amputation in 165 patients with type 2 Diabetes Mellitus in Presidente Prudente-São Paulo, southeast of Brazil. The authors found that the main predictive risk factors for amputation were ulcers and smoking. In addition, the more cardiovascular risk factors, the greater the prevalence of amputation.

The study by Mantovani et al. [2] shows the importance of identifying the risk factors for amputation and guide more efficient public health strategies for the prevention of amputation in the Brazilian population.

In our cohort [3] of 182 patients with chronic critical lower limb ischemia followed for  $3.71 \pm 2.4$  months after hospital discharge with of follow up showed that the main variables associated with amputations were: previous amputation (62%,  $p < 0.001$ ), trophic lesion (41.2%,  $p < 0.018$ ), infection (54.5%,  $p < 0.001$ ), chronic kidney disease (67.7%,  $p < 0.001$ ), elevated creatinine ( $3.64 \pm 2.3$ ,  $p < 0.001$ ), and hemoglobin A1C ( $7.79 \pm 0.96$ ,  $p < 0.001$ ). We found no difference for sex, smoking, high blood pressure and previous stroke. This study was performed in Salvador-Bahia, northeast of Brazil (Hospital Ana Nery – Universidade Federal da Bahia – UFBA), differently from the study by Mantovani et al. [2] that was performed in Presidente Prudente-São Paulo, southeast of Brazil.

These data [2,3] reinforce the need for a deep understanding of local risk factors for amputation. Brazil is a continental country with specific local characteristics that need special attention. It is important that Brazilian researchers investigate different Brazilian areas to identify risk factors for amputation and guide public health strategies, considering that the risk factors might be also related to the geographical area [1].

Making more efficient public health strategies could optimize public investments in our developing country with social concerns.

### Conflict of interest

The authors have declared that no competing interests exist.

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