Reviewer’s report

Title: Predictors of lower extremity amputation in patients with diabetic foot ulcer: findings from MEDFUN, a multi-center observational study

Version: 0 Date: 10 Feb 2019

Reviewer: Frances Henshaw

Reviewer's report:

Overview:

The authors have articulated the problem (DFU) and the gap in the literature. The comments below pertain to the manuscript. In places the language used could be refined and there are a few grammatical errors, many, but not all of which I have listed below. The authors state in line 88:

'Details of the study design, patient recruitment, clinical and laboratory measurements, patient management and statistical analysis have been presented in the general paper currently under review by another journal, and are hereby summarized'.

I would be grateful if the authors could clarify how the other paper is different. If it is sufficiently different and this manuscript still has novelty, then my suggestion would be that this sentence needs omitting and a full description of demographics etc should be included. Fundamentally the two main concerns I had were around the diagnosis of vascular disease and the omission of data about the size of the wounds, which clearly could be a determinant for amputation. Clarification of these points along with a little polish in terms of grammar and I think this is a very neat study.

Line 1: The first line of the introduction does not read well. 'Owing to' is perhaps not the best way to start a manuscript. Suggest rewrite of this sentence

Line 49 - it is unclear are there 5million with diabetes of whom 2/3 are undiagnosed, or 5 million and then another 10 million undiagnosed

Line 50 'is' change to 'are' undiagnosed

Line 51 'situation of chronic undetected hyperglycemia is expected to increase the risk of complications several folds. Consequently, chronic complications are common among individuals with diabetes in Nigeria' would benefit from a rewrite

Line 53 it is increasingly frowned upon to use the word 'diabetic', not something that bothers me but might bother some readers, consider using DRFU - diabetes related foot ulcer
Patients were interviewed on knowledge of proper foot care practices and whether they had received any foot care education prior to foot ulceration - a description of this interview would be helpful.

'Peripheral artery disease was diagnosed based on impalpable dorsalis pedis and/or posterior tibial artery on manual palpation or significant arterial narrowing (>50%) on Doppler ultrasonography.' I would contend that impalpable pulses are not a good indicator of PAD, please give a rational for this choice. How many patients were diagnosed with ultrasound? It does say in the following paragraph that both lower limbs were ultrasounded. Does this mean that all could have PAD determined by vessel narrowing, and is so which vessels were used, presumably a blockage in the femoral artery would not necessarily be picked up if only distal vessels were scanned. Why were ABPI or TBPI not selected?

'We defined amputation above the mid-tarsal bone or involving the big toe as major amputation, otherwise it was minor' suggest rephrase the last few words

Line 196 suggest change sequel to consequence

Discussion

Some well made points, and good comparisons to existing literature. Limitations of HbA1c could be discussed (it does not capture fluctuations in BGL) as well as the limitations of the Wagner (does not capture wound size).

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