Reviewer's report

**Title:** Prevalence and type of Monoclonal Gammopathy of Undetermined Significance in an apparently healthy Nigerian population: A Cross Sectional Study

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**Reviewer:** Ingemar Turesson

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In this paper the authors aim to describe the prevalence of monoclonal gammopathy among inhabitants in Lagos, Nigeria and compare the results with those from other studies which have indicated a racial difference in prevalence. The laboratory examinations are adequate and the diagnostic criteria of MGUS properly applied. They find only one individual with an M-component among 414 subjects and make the interesting observation that this occurred at a relatively young age. They conclude that MGUS is not a common finding in the relatively young population of Nigeria.

1. Although this is correct, what is more interesting is whether the age-adjusted prevalence differs from that in e.g. US and Ghana. It would also have been interesting to see if the relation to age that is evident in the caucasian population but not in the population of Ghana is observed. Unfortunately there are limitations of the study that makes it very difficult to decide on that.

2. First the population size is too small. The observed prevalence of 0.24 % has confidence limits (95 %) of 0.01-1.38. Second there are too few patients in higher age groups to make it possible to compare with other studies. Only 34 % are 50 years or older compared to 100 % of patients in the Ghana study by Landgren et al. The authors should be still more clear about these limitations and stress that the data can only be used to generate a hypothesis regarding whether prevalence in Nigeria differs from Ghana or Western Countries.

3. It is not clear how the study population was recruited. Considering the known age-related incidence of MGUS, at least in western countries - the authors might have made efforts to include more patients in the higher age groups. The authors should better describe how the recruitment was planned and performed.

Minor remarks.

4. The discussion is rather extensive and could be shortened.

5. The authors use a reference (14) by Aguzzi et al to mention the 3 % prevalence of MGUS in a Swedish population rather than quoting the original publication by Axelsson et al – the very first study of the prevalence of MGUS ever performed!
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.