Reviewer’s report

Title: Evaluation of left ventricular remodelling in young Afro-Caribbean athletes.

Version: 0 Date: 12 Apr 2019

Reviewer: Dhrubo Rakhit

Reviewer's report:

This is a study exploring the ethnic differences in footballer players by tissue characterisation and cardiac remodelling using echocardiography. A sub-cohort has also had follow up. Interestingly in the baseline groups, strain data showed no significant differences between black and white athletes, whereas the black athletes had higher wall thickness.

In Lines 50-51 the sentence "This ventricular adaptive remodelling is adequate, reversible characterized by a normal systolic and diastolic function" is grammatically incorrect. I recommend removing the word adequate.

Line 52 a preserved - a should be removed

Line 55 nowadays. This word should be removed.

Line 60 It's should read it is

Line 62 the words "a heart" should be removed


Line 70 a reference needs to be included to back up this statement.

LV remodelling in black athletes has been previously described and is generally accepted. The numbers in each group are relatively low and probably explains why there were non-significant differences in LV mass. The interesting aspect is the persistence of LV remodelling in that black athlete, but this is not surprising.

To classify all Afro-Caribbean players into a subgroup known as "black athletes" is likely to be too-simplistic as there are likely to be ethnic differences (e.g. West African vs East African) between many of the players within this subgroup. This is an area which requires some evaluation and consideration. In this paper the terms Afro-Caribbean and Afro-American have been used interchangeably. This is incorrect and stricter definition of ethnic backgrounds are required.
The ECG figures supplied are too small and difficult to interpret. Abnormal ECGs were found in at least 7% of WP and it would be useful to understand whether these athletes had normal wall thickness or strain patterns.

The criteria for determining which players were selected for follow up needs to be explained to avoid potential for bias. If the rationale for follow up is not cogent, then I have reservations about drawing any meaningful conclusions. The authors need to explain why 47 BP did not have follow up. I suspect the follow up population consisted of players who continued to play and those who were lost to follow up represent a cohort who gave up playing football. If data were available for those players who detrained, the paper would be considerably stronger. Loss to follow up of over half the original cohort is a considerable weakness of the study.

One of the papers conclusions is "Global Longitudinal Strain has not been specifically determined on Afro-American athletes yet". Given this statement, a fundamental drawback is the lack of follow up strain data.

In the reference section there are numerous typographical errors. For example, "subclinicalleftventricularsystolicdysfunction" or "electrocardiographicrepolarization. Each incorrect reference needs to be re-referenced without such basic mistakes.

In its current format this paper is not suitable for publication. It does not add to current literature and there are potential methodological flaws, which have not been acknowledged by the authors. I have not been able to highlight all the grammatical errors which need careful attention and correction. Whilst higher definition ECG figures are required, these do not add useful information to the paper and are not necessary. Examples of the strain curves obtained would be more relevant figures. The methodology section needs to provide the criteria for follow up. Comparative data for BP who detrained could strengthen the paper but without this I have strong reservations regarding suitability for publication.

**Level of interest**
Please indicate how interesting you found the manuscript:

An article of limited interest

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited
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