

When is a heart attack not a heart attack?

Cardiovascular disease accounts for approximately 40% of medical admissions, costs over £30 billion and accounts for over 180 000 deaths per year in the UK (Luengo-Fernandez et al, 2006; British Heart Foundation, 2012). It is common, costly and deadly and so is frequently discussed by the media, yet such discussions are often factually incorrect.

A heart attack refers to the sudden blockage of one of the three coronary arteries that supplies the heart with blood, leading to chest pain and possibly damage to the heart. Heart failure refers to inefficient contraction or relaxation of the heart's ventricles, leading to breathlessness, fatigue and swelling. A cardiac arrest refers to a sudden loss of meaningful heart contractions, leading to unconsciousness and possibly death. A heart attack can lead to a cardiac arrest in the short term, or heart failure in the medium to long term. Heart failure can lead to cardiac arrest but a cardiac arrest leads to neither a heart attack nor heart failure.

So, these are all distinct conditions, with distinct causes, presentations and treatments. However, journalists frequently misunderstand and use improper terminology when referring to such serious heart disease. For example, the *Daily Express* said that the footballer Fabrice Muamba suffered a 'heart attack' (Fox, 2012), *The Sun* referred to the British Heart Foundation's recent advert for cardiopulmonary resuscitation, featuring Vinnie Jones, as treatment for 'heart attack cases' (Jones, 2012), the *Mirror* talked about how defibrillators treat 'heart attacks' and in a feature entitled 'HRT can cut heart attack risk' (Byrne, 2012), *The Guardian* referred to the drug reducing the risk of heart failure, without qualifying that the conditions are different, even though, as the article later states, the drug reduces the risk of both (Campbell, 2012).

Dr David R Warriner is Clinical Research Fellow and Honorary Cardiology Registrar in the Medical Physics Group, Department of Cardiovascular Science, University of Sheffield, Medical School, Sheffield S10 2RX (d.r.warriner@sheffield.ac.uk)

The cause of Fabrice Muamba's cardiac arrest remains unknown and it is unlikely that it was caused by a heart attack; cardiopulmonary resuscitation is for use in cardiac arrest situations only and defibrillators are of no use in a heart attack, unless it is complicated by cardiac arrest. A conscious patient with crushing, central chest pain caused by a blocked coronary artery will not thank you for jumping up and down on his/her chest, no matter how accomplished your falsetto karaoke voice.

While these are just a few recent examples, it could be argued that this is part of a wider trend of the dumbing down of reporting of medical topics by the media or alternatively that it reflects the increasingly fine line journalists must tread between accuracy and readability. The public are intelligent enough to understand, and journalists should be educated enough to know, the difference between these conditions. Despite this, newspapers often use the three terms interchangeably, perhaps as a result of misinformation from their sources, medical or otherwise, lack of understanding of the pathophysiology, pressure to reach a story deadline or perhaps the desire to use common terminology a broad readership will understand. It may also be that the patient interviewed does not fully understand his/her own condition or the researcher has not made it clear what his/her study findings were.

Perhaps it is understandable why an article title 'Joe Bloggs suffers cardiac arrest following polymorphic ventricular tachycardia as a result of possible underlying arrhythmogenic right ventricular dysplasia' would be sent to the editing room floor, and replaced with 'Joe Bloggs suffers heart attack'. But, while it might make for more manageable and snappy headlines, it is incorrect and misleading.

Like medical professionals, journalists have a duty of care to the public, as their readers, just like our patients, treat what is said and written as the truth. Let us not forget how powerful other patient's narratives are. The general public are repeatedly being misled over what constitutes a heart attack, a cardiac arrest or heart failure.

It is important for the public to recognize and act early if they see someone suf-

fering from what they suspect is serious heart disease, so they need to know what they should do. But also, if they suffer the same fate, what subsequent treatments might be offered in hospital such as a pacemaker or angioplasty and, for those patients with a particular interest or rare condition, what new treatments are in development, such as stem cell transplantation or the total artificial heart. How can this be possible, if they are being lead to think X is Y? As a doctor regularly looking after such patients, I would not say they were suffering from a heart attack if they were not, and if I didn't know the diagnosis, I would keep my counsel until it was clear.

This problem is not limited to heart disease and others may feel similarly aggrieved about misreporting of other medical, and perhaps scientific, issues. Most newspapers employ medical correspondents, but I wonder how much medical training they receive, how they research their stories and whether they seek medical advice before running such stories, particularly on specialist and increasingly sub-specialist areas such as cardiology.

I would implore journalists and editors to think twice before running stories where the diagnosis is in doubt, to check with local experts what acceptable lay terms are, and finally rather than just seeking a sound bite from a doctor, patient or researcher, check that it actually makes sense. **BJHM**

Conflict of interest: none.

- British Heart Foundation (2012) *Coronary Heart Disease Statistics 2012*. British Heart Foundation, London
- Byrne P (2012) Marathon pacemaker: Heart attack patient to run 26 mile route with defibrillator implant like Fabrice Muamba's. *Mirror* www.mirror.co.uk/news/uk-news/heart-attack-patient-to-run-26-797989 (accessed 15 April 2013)
- Campbell D (2012) HRT can cut heart attack risk, study shows. *The Guardian* www.guardian.co.uk/lifeandstyle/2012/oct/09/hormone-replacement-therapy-heart-attack (accessed 15 April 2013)
- Fox E (2012) Fabrice Muamba 'devastated' after having to retire from football. *Daily Express* www.express.co.uk/sport/football/339972/Fabrice-Muamba-devastated-after-having-to-retire-from-football (accessed 15 April 2013)
- Jones A (2012) Read this or they'll be gone in 60 seconds. *The Sun* www.thesun.co.uk/sol/homepage/showbiz/tv/article4039989.ece (accessed 15 April 2013)
- Luengo-Fernandez R, Leal J, Gray A, Petersen S, Rayner M (2006) Cost of cardiovascular diseases in the United Kingdom. *Heart* 92(10): 1384-9