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Pills or push-ups?


Statins are back in the spotlight this month, with the publication of a strongly worded critique of their use in the Pharmaceutical Journal (Demasi et al, 2017). This article adds further fuel to a controversy that has been raging over the past few years; are fats or sugars more important in causing cardiovascular disease, and what is the best way to reduce risk?

Traditional thinking is that high levels of LDL cholesterol promote cardiovascular disease (CVD), and that aggressive lipid lowering with statins reduces the risk of disease (Stokes, 2008). This dogma has been challenged in recent years, with a growing body of clinicians questioning the validity of the supporting evidence (Walsh, 2014). The key argument is that while some trials have shown reduced mortality with statin use, others have failed to demonstrate an effect, or have seen a trend towards patient harm (Demasi et al, 2017). It is claimed that the benefits of statins have been exaggerated, whilst their adverse effects have been brushed under the carpet (Diamond and Ravnskov, 2015). In addition, trials of the Mediterranean diet have demonstrated significant risk reduction, despite the diet containing high quantities of olive oil, nuts and oily fish (Estruch et al, 2013). This suggests that some fats are cardioprotective, and that a strategy reducing all fats may be harmful (DiNicolantonio et al, 2016).

This issue is highly relevant to cardiac nurses, and to the wider NHS for several reasons. Firstly, statins are one the most widely prescribed medicines in the UK. In 2016, 71 million prescriptions were dispensed for lipid-lowering drugs, with a total drug cost of £220 million (Health & Social Care Information Centre, 2017). This is a great deal of money to spend, if statins are indeed less effective than we thought. Secondly, a focus on fat reduction is diverting attention away from what many clinicians believe is a more important issue; insulin resistance. The low-fat diets promoted by government bodies tend to encourage greater consumption of sugar and refined carbohydrate, as these are used to replace fats in “low-fat” products (DiNicolantonio et al, 2016). Increased consumption of these foods is linked to poor glucose handling and hyperglycaemia, which are significant risk factors for CVD as well as diabetes (Demasi et al, 2017).

So, what is the answer? Official advice has not changed; low-fat diets and statins continue to be recommended by the National Institute for Health and Care Excellence (2014). We need to recognise, however, that risk reduction is complex and multi-faceted. Many patients will be aware of the Mediterranean diet, and of recent proposals to restrict sales of high sugar drinks within the NHS (NHS England, 2016). Advice therefore needs to be balanced. Patients should be encouraged to take statins if they are prescribed, and should be given
advice that encourages consumption of cardioprotective fats, and discourages foods high in unhealthy fats and sugar. A greater emphasis on lifestyle modification is also needed. In particular, patients should be encouraged to become more physically active, as exercise promotes CVD health, as well as lowering insulin resistance (Malhotra et al, 2017).

Unfortunately, this focus on lifestyle modification is undervalued at government level; health promotion spending has always been small, and has been cut progressively over recent years (British Medical Association, 2017). The approach is also undervalued by clinicians; prescribing medication is easier than educating the patient, and is the dominant approach (MacAuley et al, 2015). Given the emerging evidence, attitudes need to change at both governmental and clinician level. Dishing out pills, especially if they are the wrong ones, may be less effective than good old-fashioned health advice.


Demasi M, Lustig RH, Malhotra A (2017) The cholesterol and calorie hypotheses are both dead – it is time to focus on the real culprit: insulin resistance, Pharmaceutical Journal, 14 July 2017 http://www.pharmaceutical-journal.com/opinion/insight/the-cholesterol-and-calorie-hypotheses-are-both-dead-it-is-time-to-focus-on-the-real-culprit-insulin-resistance/20203046.article


Malhotra A, Redberg RF, Meier P (2017) Saturated fat does not clog the arteries: coronary heart disease is a chronic inflammatory condition, the risk of which can be effectively reduced from healthy lifestyle interventions. Br J Sports Med doi: 10.1136/bjsports-2016-097285


