Who needs vitamin D?

The literature on vitamin D and cardiovascular disease is equally unsatisfying, according to a second more narrative review. A few trials, with conflicting results, stood out among many dozens of observational studies, which were more or less limited by confounding. Those reporting an association between deficiency and disease may be picking up a signal that vitamin D deficiency is a marker for poor general health, say the authors. Sick people tend to get very little sunshine—the main source of vitamin D.


MRI looks better than SPECT for diagnosing coronary heart disease

Cardiovascular magnetic resonance imaging (MRI) was a more reliable test of coronary artery disease than single photon emission computed tomography (SPECT) in a recent trial from the UK. Researchers compared both these tests with x ray angiography in adults with stable angina and at least one risk factor for coronary heart disease.

Almost 40% of participants had clinically significant coronary artery disease as defined by x ray angiography, the reference standard (282/726; 39%). Cardiovascular MRI had a significantly higher sensitivity (86.5% v 66.5%) and negative predictive value (90.5% v 79.1%) than SPECT. Overall diagnostic performance, given as area under the receiver operating characteristic curve, was also significantly better for magnetic resonance imaging (0.89 (95% CI 0.86 to 0.91) v 0.74 (0.70 to 0.78); P=0.0001).

The researchers used strict protocols to compare the two techniques, which were performed in random order. Both tested myocardial perfusion under stress (adenosine) and left ventricular function. MRI also imaged the coronary arteries, but it was still more accurate than SPECT in analyses that excluded angiographic data. Investigators interpreting images were masked to all other imaging results.

Sophisticated multicomponent MRI isn’t widely available, says a linked comment (doi:10.1016/S0140-6736(11)61671-1). It is too early to say where it might fit into routine diagnostic practice, which also includes stress echocardiography. We know MRI can be accurate in the hands of experts. Now we need to find out if this kind of imaging can help patients avoid invasive tests and procedures or help them get better faster without a sharp increase in costs.

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