Higher vitamin D level associated with lower risk of total cancer

The benefits of vitamin D in the prevention of skeletal disorders have long been recognised. Now, accumulating evidence suggests that these benefits may extend beyond bone health to several chronic diseases, including cancer.

Vitamin D slows the proliferation of malignant cells and exerts a pro-differentiating effect, so they look more like normal cells and grow and spread more slowly. This is done through the regulation of multiple signalling pathways arresting the cycle of malignant cell development.

The effects of vitamin D include influencing apoptosis or normal cell death, angiogenesis, which involves the formation of new blood vessels, and inflammation.

High levels of sunlight are known to correlate with lower death rates from cancer of the colon and this led to the suggestion that metabolites of vitamin D might be having a protective effect.

Optimum concentration of circulating vitamin D has previously been associated with a lower incidence of colorectal and lung cancers, but this population-based prospective Japanese study aimed to extend this knowledge by seeking an association between vitamin D concentrations and subsequent risk of cancer in all sites.

The circulating vitamin D concentrations of 3,303 people with cancer and 4,044 randomly selected other participants were measured.


Drug-eluting stents reduce cardiac events in older people

As people grow older their risk of coronary artery disease (CAD) increases so they are more likely to need a stent inserted into a diseased artery.

The stent used can either be bare metal or drug-eluting: that is, one that has a polymer coating that slowly releases drugs into surrounding cells to block cell proliferation.

When stents are inserted, antiplatelet therapy is needed, but this can be given for a shorter time when a drug-eluting stent is used.

Management of CAD in older patients can be challenging as they often have a more extensive and complex form of the disease and are more prone to bleeding complications when receiving antiplatelet medication. Unfortunately, older patients have largely been excluded from trials, so it is unclear whether they are best suited to bare-metal stents with a longer course of antiplatelet drugs or to the newer drug-eluting stents for which shorter antiplatelet therapy is used.

This randomised trial aimed to compare outcomes between the two types of stent in older people. Patients with coronary stenosis, aged 75 years or older, were recruited from 44 centres in nine countries. The researchers measured cardiac and cerebrovascular events during the first year.


Anticholinergic drugs linked to dementia

Anticholinergic drugs are used to treat a variety of conditions and work by blocking acetylcholine, a key neurotransmitter.

Long-term use of some anticholinergic medications, including antidepressants such as amitriptyline and paroxetine, is associated with an increased risk of dementia even when taken many years before a diagnosis.

This UK study was the largest and most detailed of its kind into the long-term effect of anticholinergic drug use in relation to dementia. The research team explored if there were links between different classes of anticholinergic medication and incidence of dementia diagnosis.

The medical records of 40,770 people aged over 65 diagnosed with dementia were compared with those of 283,933 people without dementia. More than 27 million prescriptions were analysed.

Researchers studied people with a new dementia diagnosis and the anticholinergic medication they were prescribed between four and 20 years before being diagnosed. They found that people who had been diagnosed with dementia were up to 30% more likely to have been prescribed specific classes of anticholinergic medications.