

Breaking News on Food & Beverage Development - Europe

Olive extract may improve quality of life for arthritis sufferers

By Stephen Daniells

06/08/2007- **Supplementation with an olive extract decreased pain and inflammation, and improved the quality of life of people suffering from osteoarthritis, claims a new study.**

Writing in the new issue of the journal *Nutrition Research*, researchers from Arizona State University and California-based company CreAgri report that the supplements also had the added benefit of decreasing homocysteine levels, a marker of improved cardiovascular health.

"An 8-week treatment with olive extract improved daily living activities in patients with osteoarthritis (OA) and significantly reduced plasma C-reactive protein (CRP) and homocysteine levels in patients with and rheumatoid arthritis (RA)," wrote lead author Catherine Bitler.

"Thus, introducing a natural and safe food extract into the diet may have the same or better beneficial effects as an intervention diet," she added.

Bone health is set to become a major segment of the supplements and functional foods market, as ageing populations and the additional strain from obesity swell the numbers affected by osteoporosis.

But while the World Health Organisation calls the condition its biggest global healthcare problem, the main natural product targeted at bone health - calcium supplements - is entering a mature category, and a report from Frost and Sullivan warns that the supplements are set to see 'fierce cannibalisation' of sales from therapeutic drugs as consumers look for faster remedies.

The new double-blind, randomised, placebo-controlled study recruited 90 people (age range 55 to 75, average BMI 27.9 kg per sq. m) to receive either 400 mg of freeze-dried olive vegetation water (OVW) per day or placebo for eight weeks. Blood samples were taken in order to measure a variety of biochemical markers.

Bitler and co-workers report that the RA subjects receiving the olive extract had significantly lower homocysteine levels than the placebo group.

"High homocysteine levels in patients with RA have been associated with higher rates of mortality from cardiovascular events," stated the

researchers.

C-reactive protein (CRP) levels decreased by about 50 per cent as a result of olive extract supplementation, while CRP levels in the placebo group increased.

CRP is produced in the liver and is a known marker for inflammation. Increased levels of CRP are a good predictor for the onset of both type-2 diabetes and cardiovascular disease.

The researchers also noted that no significant changes were observed in markers of kidney and liver function, "*suggesting that the supplement was safe,*" they said.

This is not the first time that olive extracts have been linked to improved bone health.

Early epidemiological work by researchers from France's INRA revealed that the olive polyphenols oleuropein and hydroxytyrosol had an impact on inflammation in bones. These findings were later confirmed in animal studies.

Last year, the French researchers looked at the effects of different doses of oleuropein on the bone on inflammation-induced bone loss (osteopenia) in rats and found that bone loss was reduced as a result of supplementation (*Clinical Nutrition*, doi:10.1016/j.clnu.2006.03.009).

Source: *Nutrition Research* (Elsevier)

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"Olive extract supplement decreases pain and improves daily activities in adults with osteoarthritis and decreases plasma homocysteine in those with rheumatoid arthritis"

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