Oily fish may boost prostate cancer survival rate

24-Nov-2008 - An increased intake of fish and omega-3-rich seafood may improve prostate cancer survival by 38 per cent, according to a new study.

The prospective cohort study with 20,167 men also found that men who ate five portions of fish per week had a 48 per cent improved survival rate from the disease than men who consumed only one portion per week.

Findings of the study, led by Jorge Chavarro from Harvard School of Public Health, are published in the current issue of the *American Journal of Clinical Nutrition*.

The study adds to a small but growing body of evidence linking fish consumption and omega-3 to potential cancer benefits. However, the same researchers reported results in the journal *Cancer Epidemiology, Biomarkers & Prevention* (doi: 10.1158/1055-9965.EPI-06-1033) last year that appear at odds with the new findings.

The earlier study found reported that higher intake of the omega-3 fatty acids DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid) may cut the risk of developing prostate cancer by 40 per cent. On the other hand, the new study reports no relationship between fish intake and the risk of prostate cancer.

Over half a million news cases of prostate cancer are diagnosed every year world wide, and the cancer is the direct cause of over 200,000 deaths. More worryingly, the incidence of the disease is increasing with a rise of 1.7 per cent over 15 years.

Study details

Chavarro and his co-workers used data from the Physician's Health Study. Over 20,000 men were followed for 382,144 person-years of follow-up, during which time 2,161 cases of prostate cancer were diagnosed and 230 deaths from the disease recorded. All of the men were free of the disease at the start of the study in 1983.

Both high fish and seafood omega-3 fatty acid intakes were associated with significant reductions in the risk of prostate cancer death men, compared to men with lower consumptions.

"These results suggest that fish intake is unrelated to prostate cancer incidence but may improve prostate cancer survival," concluded the researchers.

Earlier study

The results appear at odds with the earlier study, which compared blood levels of polyunsaturated fatty acids in 476 men diagnosed with prostate cancer, and the same number of healthy controls.

Comparing men with the highest and lowest long-chain n-3 fatty acids (EPA, DPA, DHA), Chavarro and co-workers report that the highest intake was associated with a 41 per cent reduction in prostate cancer risk.

There have also been studies indicating relationships between the omega-3 to omega-6 ratio and prostate cancer. In August 2006, researchers from the David Geffen School of Medicine at UCLA reported that changing the ration of omega-3 to omega-6 in the typical Western diet might reduce prostate cancer tumour growth rates and PSA levels (*Clinical Cancer Research*, Vol. 12, Issue 15).