Inuit Are Protected Against Prostate Cancer

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FROM ABSTRACT

Incidence and mortality rates for prostate cancer are reported to be low among Inuit.

We conducted an autopsy study in 1990-1994 among 61 deceased males representative of all deaths occurring in Greenland and found only one invasive prostate cancer.

Histological data were available for 27 autopsies and revealed no latent carcinoma.

Our results suggest that in situ carcinoma is rare among Inuit and that their traditional diet, which is rich in omega-3 polyunsaturated fatty acids and selenium, may be an important protective factor.

Abbreviations: Omega-3 polyunsaturated fatty acids = n-3 PUFA
Se = selenium.

THESE AUTHORS ALSO NOTE:

“Inuit display an extremely low incidence rate of prostate cancer.”

Several factors have been proposed as protective agents against prostate cancer.

“n-3 PUFA and Se are probably the most promising.”

“Fish consumption and n-3 PUFA intake were recently reported to protect against prostate cancer in a prospective cohort of 6272 Swedish men.”


In the autopsies performed in this study, concentrations of n-3 PUFA in adipose tissue and Se in liver were measured.

RESULTS

“All but one prostate specimen was macroscopically benign.”
“It is interesting to note that the prostate carcinoma case was a 73-year-old male with a low \( n-3 \) PUFA concentration.”

The \( \text{omega-6/omega-3} \) ratio was 12.1/1 in this prostate cancer case compared with 4.56/1 for the entire group.

“The Inuit diet is composed of traditional seafood (fish and sea mammals) and is rich in Se and \( n-3 \) PUFA.”

The essential trace metal Se is found in high concentrations in fish.

CONCLUSIONS

“Considering the recent scientific evidence that both Se and omega-3 fatty acids act as strong protective agents against prostate cancer and given the exceptionally high intake of these nutrients by Inuit through their traditional diet, we conclude that the low incidence of prostate cancer in this population may be attributable to their high Se and \( n-3 \) PUFA intakes.”

KEY POINTS FROM DAN MURPHY

1) The Inuit have a low incidence and mortality of prostate cancer.

2) This low incidence of prostate cancer is attributed to the Inuit diet, which is rich in \( \text{omega-3} \) polyunsaturated fatty acids and selenium.

3) Fish is rich in both omega-3 fatty acids and selenium.

4) In this study the average ratio of \( \text{omega-6/omega-3} \) was 4.56/1.

5) In the one case of prostate cancer found at autopsy, the ratio of \( \text{omega-6/omega-3} \) was 12.1/1.