Because there are certain fallacies in descriptive epidemiologic studies, such as time trend, migration, and ecological studies, they are considered less convincing than analytical research, but they are basic and robust. The recent growing incidence of PC in Japan may be largely attributable not only to the spread of prostate-specific antigen screening but also to the changes in lifestyle, including declining intake of fish/shellfish and soy, and increased intake of deep-fried food and red meat. The latter observations may coincide with findings of migration studies, in which Japanese migrants to the United States have an elevated incidence of PC (2).

LC n-3 PUFAs play ultimate competitive inhibitory bioactive roles as n-3 series leukotrienes, thromboxanes, and prostaglandins against respective n-6 family chemicals in lipoxygenase and cyclooxygenase pathways (3). EPA, DPA, and DHA may be milder COX inhibitor analogs without adverse effects, such as gastrointestinal bleeding, bleeding diathesis, and cardiac toxicity, typically caused by aspirin or nonsteroidal anti-inflammatory drugs. LC n-3 PUFAs have long been thought to have anti-inflammatory and anticarcinogenic properties, but, as also mentioned by the authors, the findings were counter to their expectations.

Although the World Cancer Research Fund/American Institute for Cancer Research (2) has categorized fish as one of the inconclusive factors of PC, we hypothesize that increased dietary consumption of marine food and reduced intake of vegetable oils, yielding lower ratios of n-6 PUFAs/n-3 PUFAs or arachidonic acid/LC n-3 PUFAs (4), may suppress inflammation and prevent the onset of cancers, including PC.

References

Notes
All authors contributed to this article, read, and approved the final manuscript. The authors have no conflicts of interest to declare.

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