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FOOD-ANTI-INFLAM-Food ingredients with possible anti-inflammatory properties : a review

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Plant sterols or stanols are plant components found naturally in fruits, vegetables, nuts, seeds, cereals, legumes, vegetable oils and other plants. A few recent studies looked at the effect of plant sterols/stanols alone or in combination with other bioactive foods on pro-inflammatory cytokines. The anti-inflammatory effects of plant sterols are demonstrated in a study with a reduced-calorie, plant sterol-enriched orange juice beverage which reduced CRP (C-reactive protein) by 12%. On the contrast when plant sterols-enriched bread was consumed, there were no changes in CRP levels. Other studies examined the impact of plant sterols in combination with other anti-inflammatory food ingredients. It is well known that supplementation with omega-3 fatty acids is associated with a reduction in cardiovascular events through its hypotriglyceridemic, anti-aggregatory and anti-inflammatory properties. A group of researchers studied the combination of omega-3 fatty acids and plant sterols on inflammatory markers in a clinical trial. CRP was reduced by 30% and TNF by 10% when plant sterol was supplemented in conjunction with omega-3 fatty acids. In another research study, the combination of plant sterols with oat beta-glucan reduced cholesterol levels but did not influence inflammatory parameters. Overall, the anti-inflammatory role of plant sterols/stanols is still ambiguous. The health benefits of seafood have primarily been attributed to the marine lipids. Seafood consumption and intake of n-3 polyunsaturated fatty acids (PUFA) has been associated with positive effects on obesity, metabolic syndrome, insulin sensitivity and to reduce inflammatory markers. This work is a review on food ingredients with possible anti-inflammatory properties.

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Early-onset bi-cytopenia and febrile neutropenia following low-dose methotrexate therapy: A case report

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Bi-cytopenia is a rare but serious adverse effect of low-dose methotrexate (MTX) sodium therapy, and this case report describes a very early-onset of bi-cytopenia after four days of oral MTX.

A 54-year-old man was presented to Emergency Department with weakness and fever (39.20C). Four days before the rheumatology clinic with a diagnosis of rheumatoid arthritis was started with MTX (7,5mg one day a week). On initial examination, several painful lesions in his oral mucosa observed. Laboratory tests, WBC: 1100 uL, absolute neutrophil count: 250/uL, platelet: 92000, total bilirubin: 2.13 mg / dl, indirect bilirubin: 1.85 mg / dl did not feature not outside. ECG, lung graph and hepatitis markers were normal. Admitted to general internal medicine service with a diagnosis of febrile neutropenia. Neutropenia and thrombocytopenia was exacerbated in service during the follow-up (respectively, WBC: 500 uL, absolute neutrophil count: 100/uL, platelets: 11,000). The blood level of MTX was found to be within therapeutic range. Bone marrow biopsy was not needed because the current clinical picture is due to MTX. He was treated with leucovorine, intravenous antibiotics, and appropriate blood transfusions (two times, single platelet transfusion); he was discharged from hospital without any sequela.

Bi-cytopenia associated with low-dose (cumulative dose of 7,5 mg, single dose, once a week) MTX therapy had not been reported previously. Risk factors for bi-cytopenia such as renal insufficiency, hypoalbuminemia, low folate levels, concomitant infections, concomitant use of drugs, and folate supplementation were not identified in our patient.

Although bi-cytopenia associated with low-dose MTX therapy is not expected as early as 4 days after initiation of the therapy, physicians should also be aware of this life threatening adverse effect during the very first days of MTX therapy for rheumatoid arthritis patients.

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