n-3 多元不飽和脂肪酸對日間留院精神分裂症病患之輔助治療效應

Prosthetic treatment of n-3 polyunsaturated fatty acid to day care schizophrenic patients

中文摘要

本研究旨在探討 n-3 多元不飽和脂肪酸對精神分裂症病患症狀改善及副作用之輔助治療效果。本實驗募集 20 位日間留院長期藥物治療之精神分裂症病患，並且募集性別、年齡及身高相仿的 20 位健康人作爲控制組，進行飲食、體位、血液生化值及脂肪酸分析比較。另一實驗，隨機將病患分成二組，魚油組給予每天 4.4 g EPA 及 2.2 g DHA；安慰劑組給予等劑量之油酸，於介入前(第 0 週)及後(第 2、4、8、12 週)進行血液脂肪酸及正性及負性症狀評量(PANSS)分析。結果顯示，病患 BMI 顯著高於控制組($p<0.05$)；紅血球 AA (%)顯著低於控制組($p<0.05$)，EPA 及 DHA (%)比控制組有較低的趨勢。魚油組於實驗期第二週，病患 BMI 有下降的趨勢；補充期間，紅血球 AA (%)有顯著的增加($p<0.05$)，DHA (%)亦有增加的趨勢，於第 12 週時顯著高於安慰劑組($p<0.05$)，精神症狀亦有改善的現象，但並無呈顯著差異。由相關係數分析發現，魚油組紅血球 AA 及 DHA (%)與症狀嚴重度(PANSS)呈顯著負相關性($p<0.05$)，特別在第 8 週及第 12 週。綜合以上結果，紅血球 AA 及 DHA (%)可能可當作精神分裂症生理病理及診斷的參考標記之一；本實驗魚油組與安慰劑組比較並未呈現顯著的輔助治療效果，推測可能原因包括病患病史，抗精神病劑以及飲食等因子干擾所致。

英文摘要

The aim of study is to investigate the prosthetic effect of n-3 polyunsaturated fatty acid on symptoms improvement and drug
-induced side effects in patients with schizophrenia. The dietary assessment, body composition, laboratory characteristics and blood fatty acids analysis in mediated day care schizophrenic patients (n=20) were measured and compared with a health control group (n=20). In the randomized double-blind placebo-controlled study, blood fatty acids and Positive and Negative Syndrome Scale (PANSS) were measured from fish-oil group received 4.4 g EPA and 2.2 g DHA per day and placebo group received 6.6 g 90% n-9 fatty acid per day during the 12-week supplementation. The result showed that BMI of patients was significant higher and erythrocytic arachidonic acid (AA) was significant lower than control subjects ($p<0.05$). A lower tendency in both EPA and DHA (%) of erythrocyte in schizophrenic patients. After the 2-week supplementation, a lower tendency in BMI of patients in fish-oil group. Erythrocytic AA (%) in fish-oil group were increased significantly during the supplementation ($p<0.05$) and erythrocytic DHA (%) in fish-oil group were higher than placebo group

after the 12-week supplementation ($p<0.05$). PANSS of patients were improved slightly during the study period. Furthermore, an negative correlation between erythrocytic AA and DHA (%), and PANSS in fish-oil group ($p<0.05$), not in placebo group. We concluded that erythrocytic membrane AA and DHA (%) could be one of reliable biomarker for physiopathology and diagnostics of patients with schizophrenia. However, it’s hard to find the prosthetic effect of n-3 fatty acid-rich fish oil in chronic schizophrenic patients with antipsychotic agents, the confounding factor such as history, medication, diet factor etc., is needed to be considered.