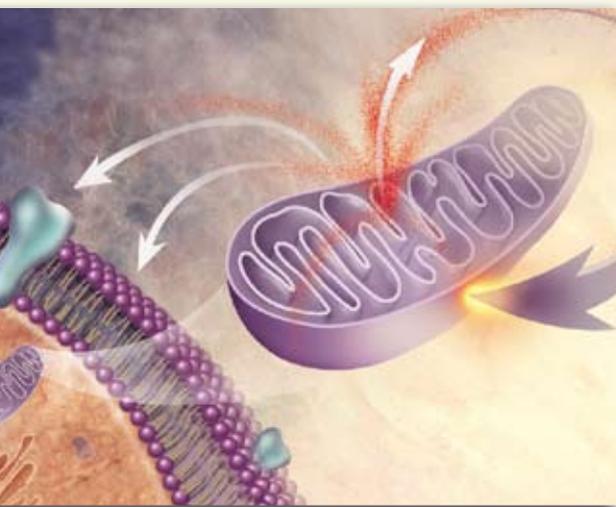


MEDICAL UPDATES



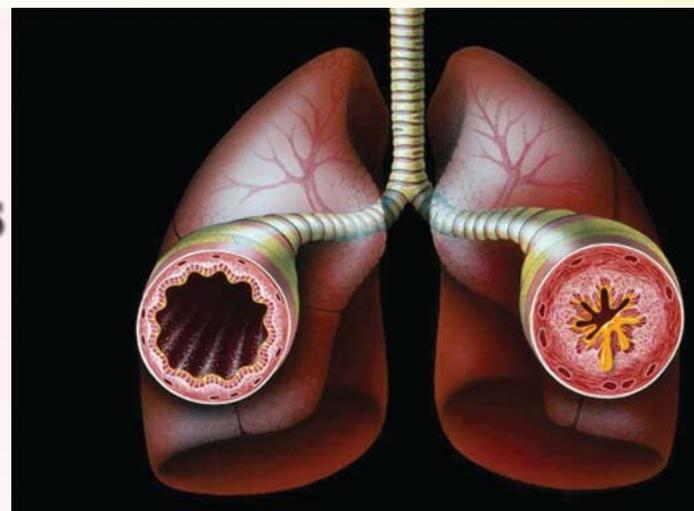
Issue No.:16 January 2014

Ursodeoxycholic acid decreased the spleen size in a patient with hepatitis C virus-related cirrhosis



Micronutrients supplementation in cognitively impaired elderly persons

Azithromycin in treatment of patients with asthma and C. Pneumoniae infection



Role of serum zinc in the oxidative stress status in Chronic Fatigue Syndrome (CFS)

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These results show that CFS is accompanied by a low serum zinc status and that the latter is related to signs of inflammation and defects in early T cell activation pathways.

ABSTRACT

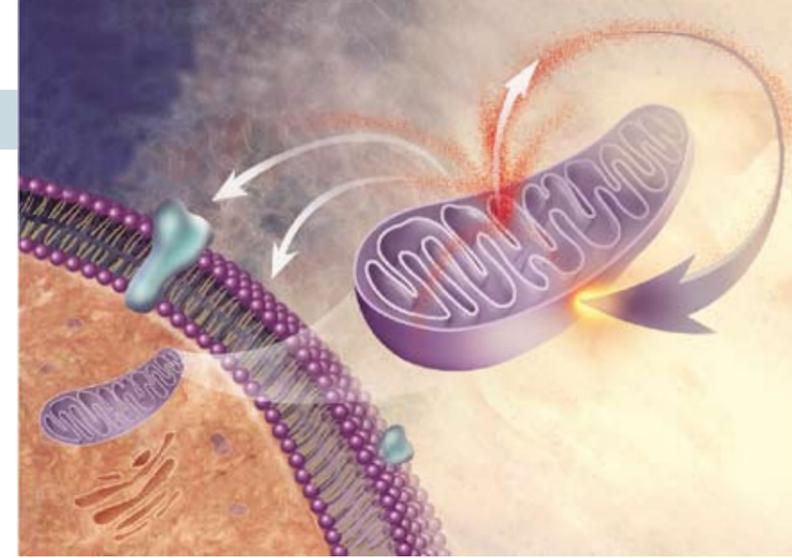
The present study examines serum zinc concentrations in patients with chronic fatigue syndrome (CFS) versus normal volunteers. Serum zinc levels were determined by means of an atomic absorption method. We found that serum zinc was significantly lower in the CFS patients than in the normal controls.

There was a trend toward a significant negative correlation between serum zinc and the severity of CFS and there was a significant and negative correlation between serum zinc and the subjective experience of infection. We found that serum zinc was significantly and negatively correlated to the increase in the alpha2 protein fraction and positively correlated to decreases in the expression of mitogen-

induced CD69+ (a T cell activation marker) on CD3+ as well as CD3+CD8+ T cells.

These results show that CFS is accompanied by a low serum zinc status and that the latter is related to signs of inflammation and defects in early T cell activation pathways. Since zinc is a strong anti-oxidant, the present results further support the findings that CFS is accompanied by increased oxidative stress. The results of these reports suggest that some patients with CFS should be treated with specific antioxidants, including zinc supplements

We found that serum zinc was significantly lower in the CFS patients than in the normal controls. There was a trend toward a significant negative correlation between serum zinc and the severity of CFS



ABSTRACT BACKGROUND:

Malnutrition is a widespread problem in elderly people and is associated with cognitive decline.

However, interventional studies have produced ambiguous results. For this reason, we wanted to determine the effect of micronutrient supplementation on blood and tissue levels and on general nutritional status in persons with mild or moderate cognitive impairment.

METHODS:

We performed a 2-month, open-label trial, administering a daily micronutrient supplement to 42 memory clinic patients with mild cognitive deficits. Blood levels of antioxidants, zinc, and B vitamins were determined before and after supplementation. In addition, we assessed metabolic markers for B vitamins and intracellular (buccal mucosa cell [BMC]) antioxidant levels. Nutritional status was assessed by using the Mini Nutritional Assessment (MNA).

Micronutrients supplementation in cognitively impaired elderly persons

Nutr J. von Arnim CA, Dismar S, Ott-Renzer CS, Noeth N, Ludolph AC, Biesalski HK.

Nutr J. 2013 Nov 15;12(1):148.

RESULTS:

Blood levels of B vitamins, folic acid, lutein, beta-carotene, alpha-carotene, and alpha-tocopherol increased significantly. Decreases in homocysteine levels and the thiamine pyrophosphate effect and an increase in holotranscobalamin were

observed. We found no increase in intracellular antioxidant levels of BMC. The MNA score in subjects at risk for malnutrition increased significantly, mainly owing to better perception of nutritional and overall health status.

CONCLUSIONS:

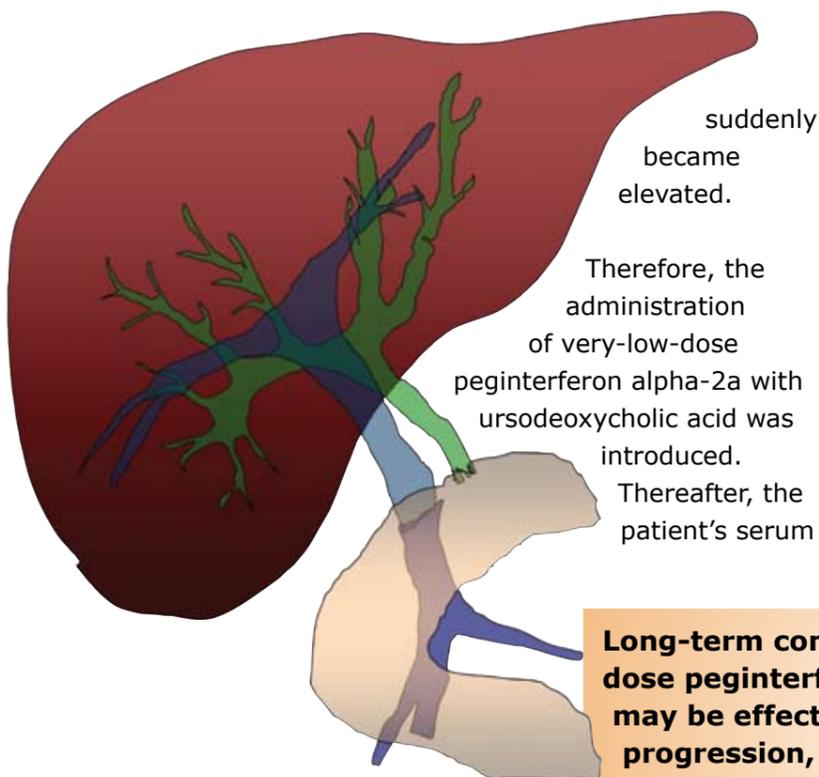
Micronutrient supplementation improved serum micronutrient status, with improved metabolic markers for B vitamins but not for intracellular antioxidant status, and was associated with improved self-perception of general health status. Our data underline the necessity of determining micronutrient status and support the use of additional assessments for general health and quality of life in nutritional supplementation trials.

Intern Med. 2013 Feb 1.

Ursodeoxycholic acid decreased the spleen size in a patient with hepatitis C virus-related cirrhosis

ABSTRACT

A 42-year-old woman with hepatitis C virus-related cirrhosis underwent peginterferon alpha-2b therapy combined with ribavirin but could not achieve a sustained viral response. Following discontinuation of this combined therapy, the patient's serum transaminase levels



suddenly became elevated.

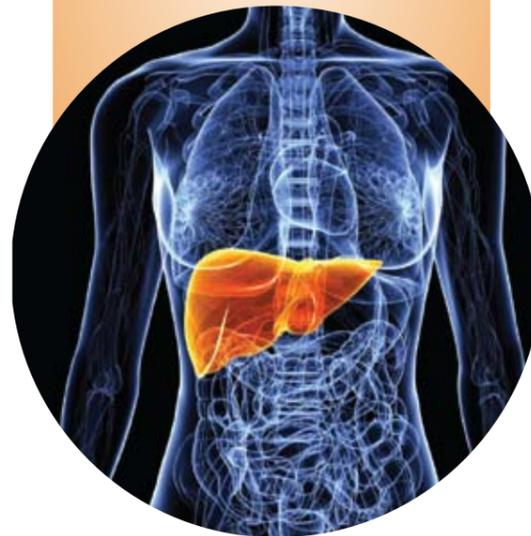
Therefore, the administration of very-low-dose peginterferon alpha-2a with ursodeoxycholic acid was introduced.

Thereafter, the patient's serum

Long-term combined therapy with very-low-dose peginterferon and ursodeoxycholic acid may be effective not only in preventing disease progression, but also in improving portal hypertension in patients hepatitis C virus-related cirrhosis.

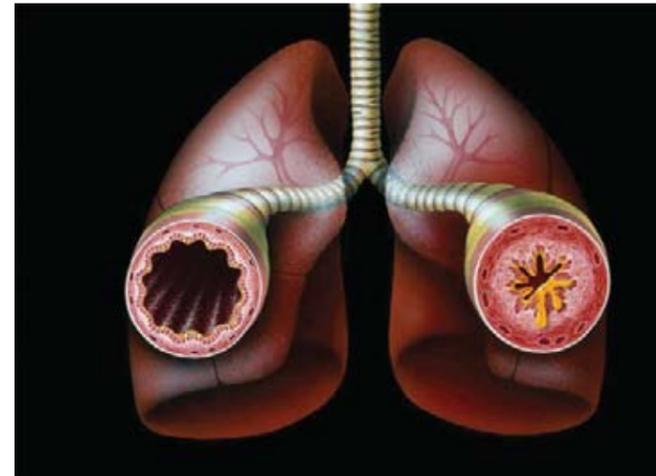
Anzai T, et. al.

Department of Gastroenterology and Hepatology, Okayama University, Japan.



transaminase levels gradually improved. Four years later, enhanced computed tomography showed shrinkage of the spleen and enlargement of the liver.

Prilozi. 2013



ABSTRACT

Chronic *C. pneumoniae* infection has been suggested as a cause for adult onset of asthma. There are data to suggest that infectious organisms, particularly the atypical bacteria *C. pneumoniae*, may be involved in asthma pathogenesis. The significance of these organisms is as yet unclear. It is not known whether this organism was allowed to persist after an infection, or was present prior to the development of asthma. The purpose of this study was to determine whether anti-chlamydial treatment with azithromycin will improve asthma symptoms and lung function in asthmatic patients positive for *C. pneumoniae*. For this purpose, 20 patients (mean age 39.8 years) with mild asthma were treated a median of 8 weeks with azithromycin 1000 mg once weekly. All patients had *C. pneumoniae* infection detected by Seeplex Multiplex PCR in sputum and positive IgG titre > 1 : 64 and IgA titre > 1 : 16 antibodies against *C. pneumoniae*. Post treatment lung function, symptom score (cough, wheezing, dyspnea), morning and evening PEF values and β 2-agonist use were compared with baseline values. After 8 weeks of treatment with azithromycin there was a significant reduction in symptom score ($p < 0.001$) and a significant improvement in

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Azithromycin in treatment of patients with asthma and *C. Pneumoniae* infection

lung function FEV1 ($p < 0.001$), morning and evening PEF values $p < 0.05$ Wilcoxon matched Pairs test. We also found a reduction in β 2-agonist use, but it was not statistically significant. Treatment with azithromycin significantly improved asthma symptoms and lung function, indicating that *C. pneumoniae* may play an important role in enhancing the inflammatory processes in the lower airways.

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Use of medications by people with chronic fatigue syndrome

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BACKGROUND:

Chronic fatigue syndrome (CFS) is a debilitating condition of unknown etiology and no definitive pharmacotherapy. Patients are usually prescribed symptomatic treatment or self-medicate. We evaluated prescription and non-prescription drug use among persons with CFS in Georgia and compared it to that in non-fatigued Well controls and also to chronically Unwell individuals not fully meeting criteria for CFS.

METHODS:

A population-based, case-control study. To identify persons with possible CFS-like illness and controls, we conducted a random-digit dialing telephone screening of 19,807 Georgia residents, followed by a detailed telephone interview of 5,630 to identify subjects with CFS-like illness, other chronically Unwell, and Well subjects. All those with CFS-like illness ($n = 469$), a random sample of chronically Unwell subjects ($n = 505$), and Well individuals ($n = 641$) who were age-, sex-, race-, and geographically matched to those with CFS-like illness were invited for a clinical evaluation and 783 participated (48% overall response rate). Clinical evaluation identified 113 persons with CFS, 264 Unwell subjects with insufficient symptoms for CFS (named ISF), and 124

Well controls; the remaining 280 subjects had exclusionary medical or psychiatric conditions, and 2 subjects could not be classified. Subjects were asked to bring all medications taken in the past 2 weeks to the clinic where a research nurse viewed and recorded the name and the dose of each medication.

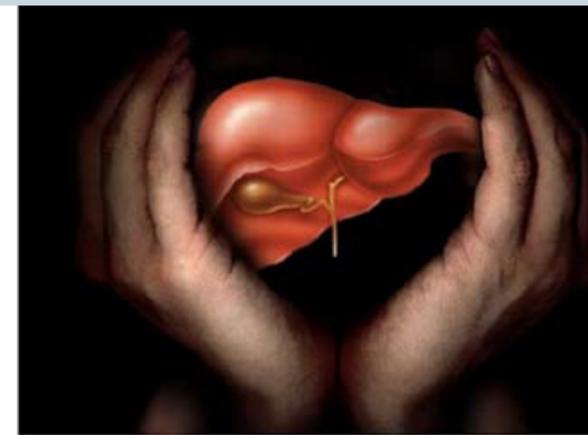
RESULTS:

More than 90% of persons with CFS used at least one drug or supplement within the preceding two weeks.

Among users, people with CFS used an average of 5.8 drugs or supplements, compared to 4.1 by ISF and 3.7 by Well controls. Persons with CFS were significantly more likely to use antidepressants, sedatives, muscle relaxants, and anti-acids than either Well controls or the ISF group. In addition, persons with CFS were significantly more likely to use pain-relievers, anti-histamines and cold/sinus medications than were Well controls.

CONCLUSION:

Medical care providers of patients with chronic fatigue syndrome should be aware of polypharmacy as a problem in such patients, and the related potential iatrogenic effects and drug interactions.



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ABSTRACT

AIM:

Primary Biliary Cirrhosis (PBC) is a common indication for liver transplantation (LT). The clinical presentation of PBC at the time of LT might have changed, due to the long-term use of ursodeoxycholic acid (UDCA). The aim of this retrospective study was to investigate whether the clinical characteristics of LT recipients with PBC have changed over the years.

METHODS:

Of all 421 adults undergoing LT from 1997 to 2012 at our center, we included 85 recipients with PBC into the present study. The 85 recipients were divided into three groups according to the year LT was performed; Group 1 (1997~2001, $n=29$), Group 2 (2001~2005, $n=29$), and Group 3 (2006~2012, $n=27$).

RESULTS:

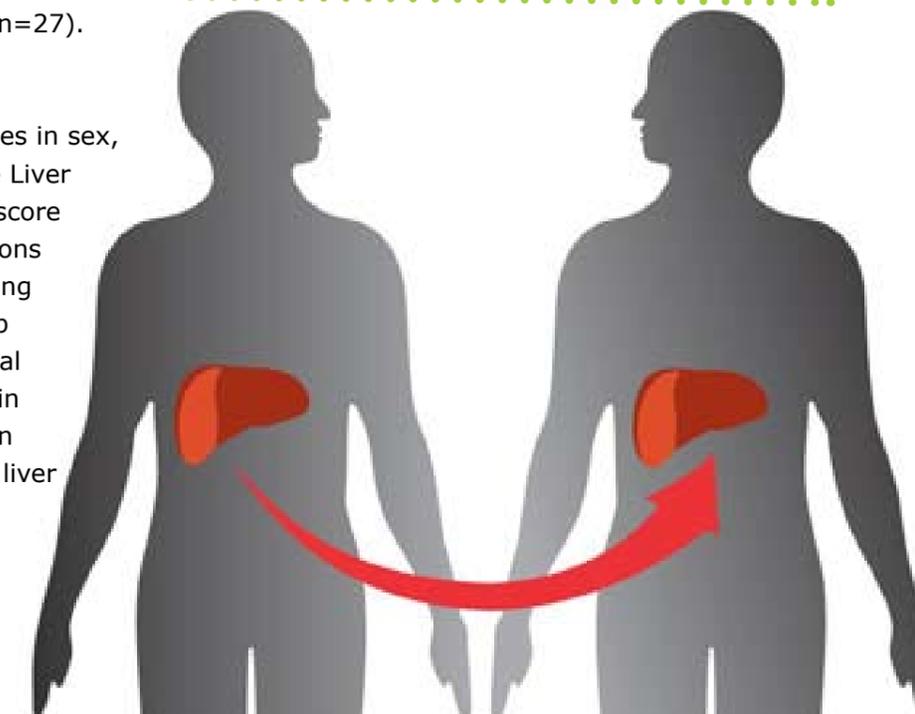
There were no significant differences in sex, recipient age, Model for End-Stage Liver Disease score, updated Mayo risk score for PBC, or liver-related complications except for esophageal varices among the three groups. Patients in Group 1 were complicated with esophageal varices less frequently than those in the other two groups ($p=0.019$). In older cases, the ratio of explanted liver

The benefit of use of ursodeoxycholic acid in patients with end-stage primary biliary cirrhosis

volume to standard liver volume (ELV/SLV) was significantly higher, and the duration of pre-LT UDCA treatment was significantly shorter ($p=0.03$ and $p<0.001$, respectively). The duration of UDCA treatment was significantly correlated with ELV/SLV ($r^2 = 0.151$, $p=0.001$).

CONCLUSIONS:

Recent LT patients were characterized by more frequent portal hypertension and more severe liver atrophy, **with longer UDCA therapy prior to LT, which have prevented the rapid progression of liver failure characterized by hepatomegaly with insignificant fibrosis or portal hypertension.**



Antimicrobial prophylaxis in tonsillectomy: the efficacy of preoperative single-dose oral administration of azithromycin in preventing surgical site infection.

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ABSTRACT

Abstract Conclusion: The results indicate that oral administration of azithromycin (AZM) is equivalent to intravenous administration of cefazolin (CEZ) for preventing surgical site infection (SSI) in patients undergoing tonsillectomy, and should be used as cost-effective antimicrobial prophylaxis. **Objective:** Staphylococcus aureus, Streptococcus spp., and pharyngeal anaerobes have been described as major pathogens causing SSI



The incidence of postoperative fever was significantly lower in the Azithromycin-treated group.

in transpharyngeal operations such as tonsillectomy. The purpose of this study was to explore whether administration of AZM, an oral antimicrobial agent, might be equivalent to intravenous administration of a first-generation cefem antimicrobial agent for preventing SSI in patients undergoing tonsillectomy. **Methods:** Patients undergoing tonsillectomy were divided into an AZM-treated group and a CEZ-treated group, for intergroup comparison of responses. AZM was administered once orally, 2 days before the operation, whereas patients in the CEZ-treated group received CEZ intravenously 30 min before the operation, 4 h postoperatively, and then twice daily for 3 consecutive days beginning the day after the operation. **Results:** There were no significant intergroup differences in mean duration of hospitalization after the operation, incidence of postoperative hemorrhage, postoperative analgesic effect, or hematologic/blood biochemical findings. The incidence of postoperative fever was significantly lower in the Azithromycin-treated group. Diarrhea occurred as an adverse drug reaction in the AZM-treated group, but no clinically significant adverse reactions were noted.