MEDICAL UPDATES

EGYPHAR

Issue No.:14 July 2013

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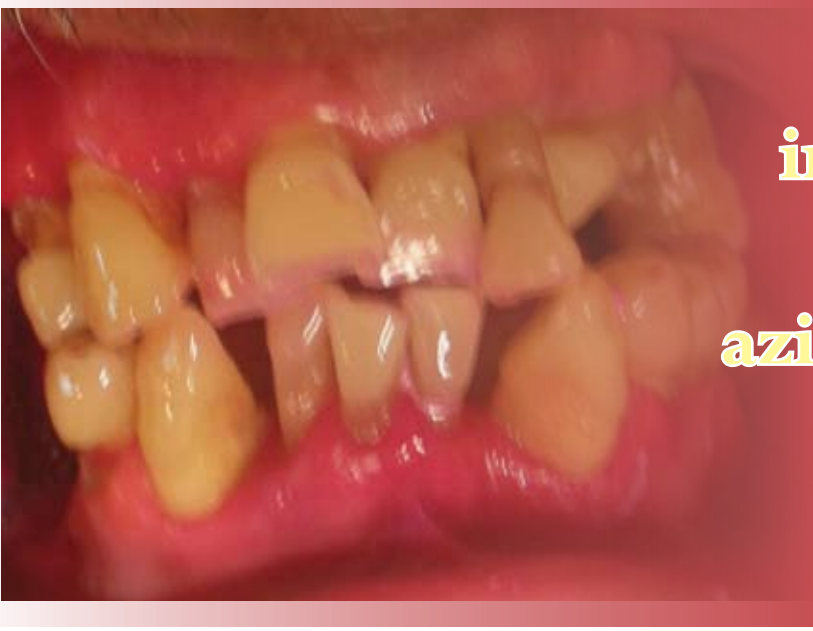

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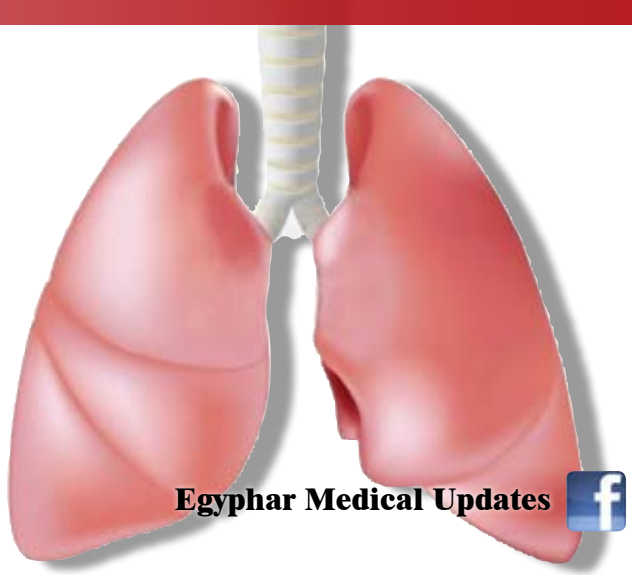

Egyphar Medical Updates

Curr Opin Pediatr. 2013 Feb;25

Katz BZ, Jason LA.

Division of Infectious Diseases, Northwestern University, Chicago,USA.

Chronic fatigue syndrome following infections in adolescents

Abstract

PURPOSE OF REVIEW:

To review the recent epidemiology, pathophysiology, and treatment of postinfectious chronic fatigue syndrome (CFS) in adolescents.

RECENT FINDINGS:

Thirteen percent of adolescents (mainly women) met the criteria for CFS 6 months following infectious mononucleosis; the figure was 7% at 12 months and 4% at 24 months. Peak work capacity, activity level, orthostatic intolerance, salivary cortisol, and natural killer cell number and function were similar between adolescents with CFS following infectious mononucleosis and recovered controls. Autonomic system, oxygen consumption, peak oxygen pulse, psychological and cytokine network differences were documented between those who recovered and those who did not.

SUMMARY:

The prognosis of CFS is better in adolescents than in adults. Activity level, exercise tolerance, and orthostatic testing could not distinguish patients with CFS from adolescents who have recovered from infectious mononucleosis (controls), while certain cytokine network analyses, life stress factors, and autonomic symptoms could.

Eur J Pediatr. 2013 Jun 12. [Epub ahead of print]

Clinical Practice: Chronic fatigue syndrome.

Werker CL, Nijhof SL, van de Putte EM.

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Abstract

The diagnosis chronic fatigue syndrome (CFS) was conceptualized in the mid-1980s. It is a clinically defined condition characterized by severe and disabling new onset fatigue with at least four additional symptoms: impaired memory or concentration, sore throat, tender cervical or axillary lymph nodes, muscle pain, multi-joint pain, new headaches, unrefreshing sleep or post-exertion malaise. Chronic fatigue syndrome in adolescents is a rare condition compared to symptomatic fatigue. The estimated prevalence of adolescent CFS ranges between 0.11 and 1.29 % in Dutch, British, and US populations. Diagnosis of the chronic fatigue syndrome is established through exclusion of other medical and psychiatric causes of chronic fatiguing illness. Taking a full clinical history and a full physical examination are therefore vital. In adolescence, CFS is associated with considerable school absence with long-term detrimental effects on academic and social development. One of the most successful potential treatments for adolescents with CFS is cognitive behavioural therapy, which has been shown to be effective after 6 months in two thirds of the adolescents with CFS. This treatment effect sustains at 2-3-year follow-up. In conclusion, the diagnosis CFS should be considered in any adolescent patient with severe disabling long-lasting fatigue. Cognitive behavioural therapy is effective in 60-70 % of the patients. Prompt diagnosis favours the prognosis.

Diagnosis of the chronic fatigue syndrome is established through exclusion of other medical and psychiatric causes of chronic fatiguing illness.

Pediatr Pulmonol. 2012 Jul

azithromycin in pediatric patients with CF

Saiman L, Mayer-Hamblett N, (Collaborators (64) Acton JD, Duan L, Anbar D, Suttmore V,

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Abstract

We previously performed a randomized placebo-controlled trial to examine the effects of azithromycin in children and adolescents 6-18 years of age with cystic fibrosis uninfected with Pseudomononas aeruginosa and demonstrated that while azithromycin did not acutely improve pulmonary function, azithromycin-reduced pulmonary exacerbations, decreased the initiation of new oral antibiotics, and improved weight gain. We now report the results of the open-label, follow-on study to assess durability of response to azithromycin and continued safety and tolerability.

METHODS:

Eligible participants were enrolled in a 24-week open-label study of azithromycin to compare efficacy and safety endpoints during the placebo-controlled trial versus open-label study in two groups: participants initially on azithromycin continued azithromycin (azithromycin-azithromycin) and participants initially on placebo who then received azithromycin (placebo-azithromycin). As in the placebo-controlled trial, the azithromycin dose in the open-label study was 250 mg Monday-Wednesday-Friday for participants weighing 18-35.9 kg and 500 mg Monday-Wednesday-Friday for participants weighing 36 kg or greater.

RESULTS:

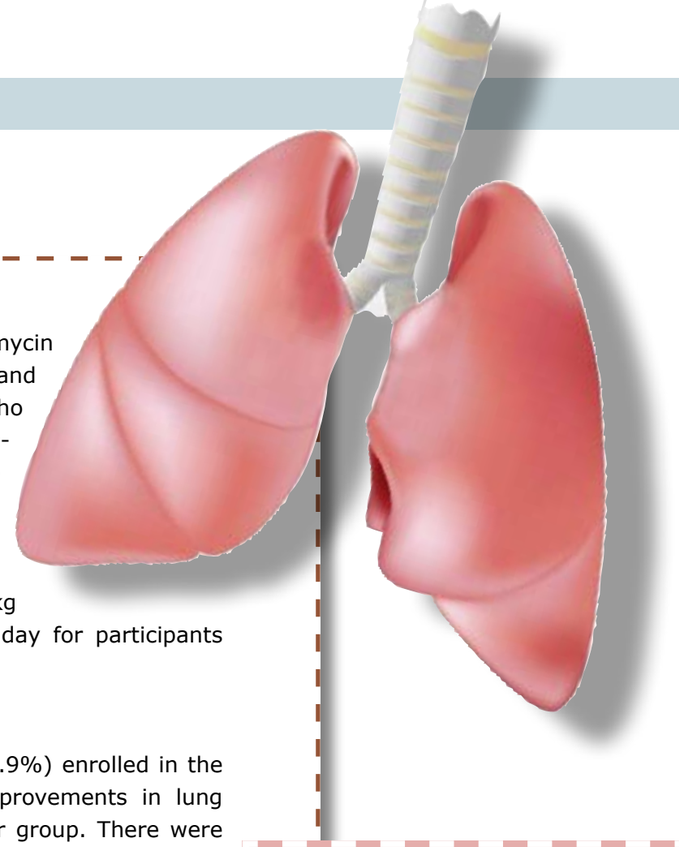
Of 174 eligible participants, 146 (83.9%) enrolled in the open-label study. No significant improvements in lung function were observed within either group. There were no differences in outcomes in the placebo-azithromycin group during the placebo-controlled versus open-label phase.

The azithromycin-azithromycin group had comparable odds of experiencing an exacerbation during the two phases (OR 1.6, CI(95) 0.8, 3.0) and stable weight gain, but new oral antibiotics were initiated more frequently during the open-label study (OR 1.9, CI(95) 1.0, 3.5). In both groups, adverse event rates were comparable during the placebo-controlled and open-label study and treatment-emergent pathogens were rare.

CONCLUSIONS:

During the open-label study, we observed continued durability of treatment response to azithromycin, as measured by pulmonary exacerbations and continued weight gain, although use of oral antibiotics increased.

There were no new safety concerns. Currently available data suggest that azithromycin reduces exacerbations and improves weight gain for 6-12 months among children and adolescents with CF uninfected with P. aeruginosa.



Currently available data suggest that azithromycin reduces exacerbations and improves weight gain for 6-12 months among children and adolescents with CF uninfected with P. aeruginosa.

JAMA. 1995 Aug 16;274(7):545-9.

Azithromycin for empirical treatment of the nongonococcal urethritis syndrome in men

Stamm WE, Hicks CB, Martin DH,.

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Abstract

OBJECTIVE:

To evaluate the use of single-dose azithromycin for empirical treatment of nongonococcal urethritis.

DESIGN:

Randomized, double-blind, multicenter trial comparing azithromycin vs doxycycline therapy, with a 2:1 randomization ratio. Patients were evaluated clinically and microbiologically for Chlamydia trachomatis and Ureaplasma urealyticum infection before therapy and at 2 and 5 weeks after study entry.

SETTING:

Eleven sexually transmitted disease clinics throughout the United States.

PATIENTS:

A total of 452 men aged 18 years or older with symptomatic nongonococcal urethritis of less than 14 days' duration.

INTERVENTION:

Patients were treated with either 1.0 g of azithromycin as a single oral dose or 100 mg of doxycycline taken orally twice daily for 7 days.

MAIN OUTCOME MEASURES:

Clinical resolution of symptoms and signs of nongonococcal urethritis, microbiological cure of C trachomatis and U urealyticum, and occurrence of adverse experiences.

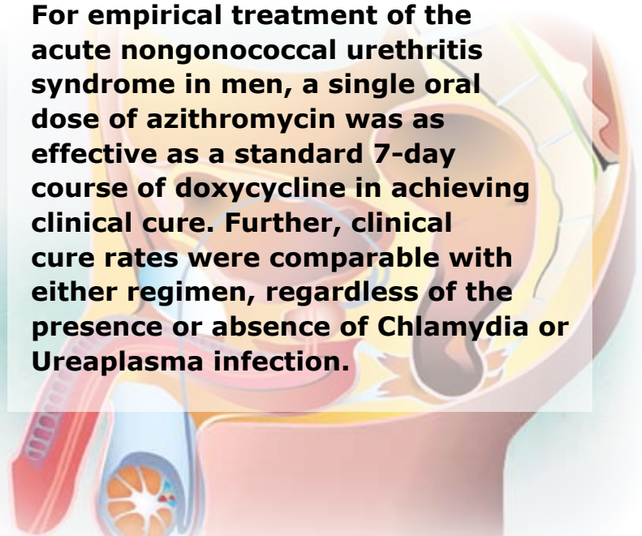
RESULTS:

Of the 452 patients enrolled, 248 in the azithromycin-treated group and 123 in the doxycycline-treated group were evaluable for clinical response. The two treatment groups were comparable in terms of age, weight, ethnic distribution, sexual preference, sexual activity, and history of prior nongonococcal urethritis or gonorrhea. Sixteen percent of the azithromycin group and 24% of the doxycycline group were culture positive for C trachomatis before therapy, while 38% and 28%, respectively, were culture positive for U urealyticum. The cumulative clinical cure rate was 81% (95% confidence interval [CI], 75% to 85%) in the azithromycin-treated group and 77% (95% CI, 69% to 84%) in the doxycycline-treated group. Clinical cure rates in the two groups were also comparable when patients were stratified by presence or absence of infection with C trachomatis or U urealyticum prior to therapy.

Among those infected with C trachomatis, overall microbiological cure rates were 83% (95% CI, 65% to 94%) for azithromycin-treated patients (n = 30) and 90% (95% CI, 68% to 98%) for doxycycline-treated patients (n = 21). Among those infected with U urealyticum, overall microbiological cure rates were 45% (95% CI, 34% to 57%) for azithromycin-treated patients (n = 75) and 47% (95% CI, 30% to 65%) for doxycycline-treated patients (n = 32). Adverse reactions were generally mild to moderate and occurred in 23% of the azithromycin-treated group and 29% of the doxycycline-treated group.

CONCLUSIONS:

For empirical treatment of the acute nongonococcal urethritis syndrome in men, a single oral dose of azithromycin was as effective as a standard 7-day course of doxycycline in achieving clinical cure. Further, clinical cure rates were comparable with either regimen, regardless of the presence or absence of Chlamydia or Ureaplasma infection.

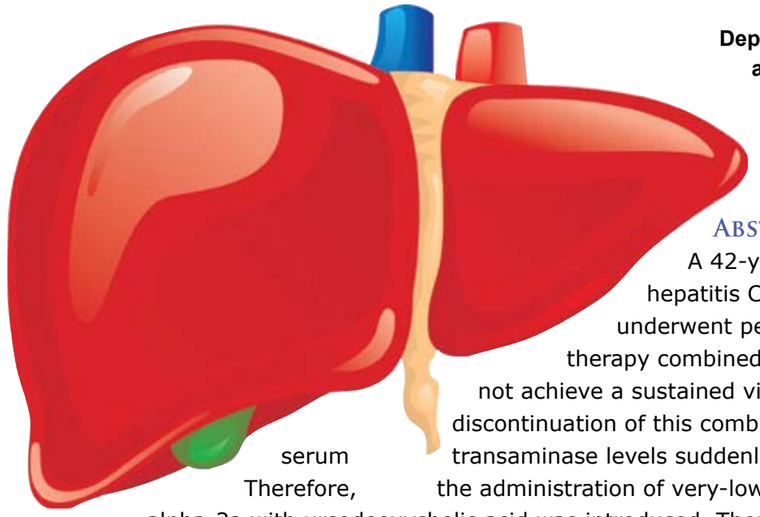


Intern Med. 2013

Long-term combined therapy with ursodeoxycholic acid and peginterferon in a patient with hepatitis C virus

Anzai T, Miyake Y, et al

Department of Gastroenterology and Hepatology, Okayama University Japan.



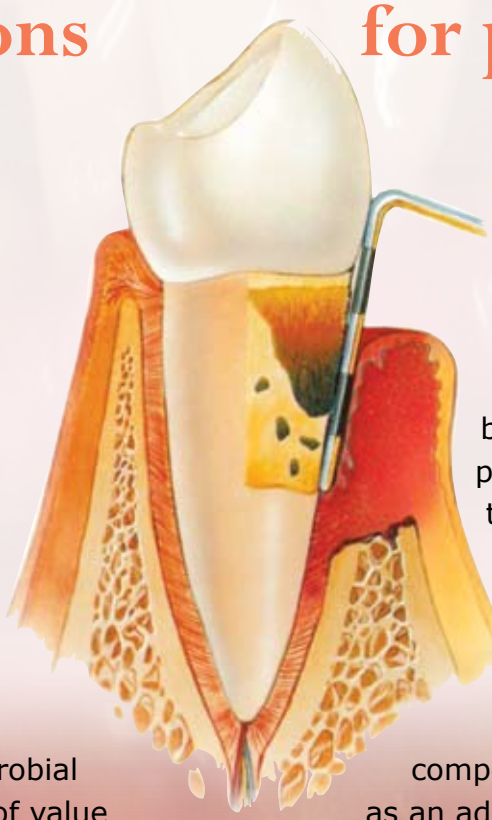
Abstract

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

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.

Inflammopharmacology. 2013 Feb 28.

Antibacterial and immunomodulatory properties of azithromycin treatment implications for periodontitis.



Bartold PM, Du Bois AH

Australian Clinical Dental Research Centre, University of Adelaide, Australia.

Abstract

Azithromycin have been found to possess not only antimicrobial properties, but also modulate inflammation. In this review the multi-faceted properties of azithromycin are discussed. Due to the unique anti-inflammatory and antimicrobial properties, macrolides, and especially azithromycin, are currently used for a number of conditions which have both an inflammatory and microbial component. For the same reason, azithromycin may be of value as an adjunct in the management of periodontitis which, although driven by an infectious component, is largely a result of uncontrolled chronic inflammation.

Azithromycin have been found to possess not only antimicrobial properties, but also modulate inflammation.