

Metronidazole Treats Tonsillitis Anaerobes

BY MIRIAM E. TUCKER
Senior Writer

WASHINGTON — Metronidazole is effective in the treatment of non- β -hemolytic streptococcal tonsillitis, Itzhak Brook, M.D., reported in a poster presentation at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

Although group A β -hemolytic streptococcus (GABHS) is one of the major causes of tonsillitis, other aerobic as well as anaerobic organisms have been isolated from both normal and inflamed tonsils. Some of these organisms are believed to be part of the normal flora, said Dr. Brook, professor of pediatrics at Georgetown University, Washington.

The option of using metronidazole

(250 mg every 12 hours for 10 days) was offered to 40 children (mean age 9 years) who presented with sore throat and massive tonsillar enlargement plus at least one of the following: anterior cervical adenitis, temperature higher than 38.3° C, and pharyngeal or tonsillar exudates or pharyngeal injection.

Rapid streptococcal antigen tests were negative in all the patients, and cultures of the tonsils showed no growth of β -hemolytic streptococci, including group A. None of the children had Epstein-Barr antibodies on immunofluorescence.

The 20 who chose metronidazole were similar to the 20 who did not with respect to age, race, sex, family size, current clinical findings, and previous antibiotic use.

Compared with the children who remained untreated, those given metro-

nidazole had significantly lower rates of fevers over 38° C after 1 day (11 vs. 17 children) and after 2 days (3 vs. 9 children), fewer sore throats after 1 day (12 vs. 19) and 2 days (9 vs. 16), and lower rates of tonsillar enlargement after 3 days (11 vs. 16) and 5 days (8 vs. 14). Pharyngeal injection at 2 days also was reduced with metronidazole, Dr. Brook reported at the conference, sponsored by the American Society for Microbiology.

One patient who received metronidazole complained of metallic taste, and three had dark urine.

Metronidazole was chosen for this study because it is effective against anaerobic bacteria, which are thought cause inflammation in the tonsils, but has virtually no activity against facultative and aerobic bacteria. ■

Strep Throat: Cephalosporin Beat Penicillin

BY MITCHEL L. ZOLER
Philadelphia Bureau

WASHINGTON — A short-course regimen with a cephalosporin was more effective than a 10-day regimen with penicillin for curing strep throat, based on a metaanalysis of 14 studies done in adults and children.

A short-course regimen, which usually lasts 5 days, runs counter to what most physicians were taught to use to treat tonsillopharyngitis caused by group A streptococci, Janet R. Casey, M.D., said in a poster presentation at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

But physicians must realize that many patients won't take an antibiotic for 10 days, and so they should consider prescribing a 5-day course. The results from the metaanalysis "are a start toward changing physician behavior," said Dr. Casey, a pediatrician at the University of Rochester (N.Y.).

The metaanalysis included 14 studies with a total of 1,880 patients treated with one of seven cephalosporins and 2,760 patients treated with penicillin. The most commonly used drug was cefpodoxime (Vantin), in four studies, followed by cefuroxime (Ceftin), in three studies. Cefixime (Suprax) and cefdinir (Omnicef) were each used in two studies, and cefadroxil (Duricef), cefotiam, and cefprozil (Cefzil) were each used in a single study.

Twelve of the studies involved a 5-day course of cephalosporin. One study used a 4-day regimen of cefuroxime, and another a 4-day course of used cefixime.

Overall, the results of these 14 studies showed that treatment with a short-course of a cephalosporin produced a 63% higher cure rate than a 10-day course with penicillin, a difference that was statistically significant.

The value of a short-course regimen was highlighted in an analysis of four studies that each compared a 5-day course of a cephalosporin with a 10-day course of the same drug. The results showed that compliance with the 5-day regimens was three-fold greater than compliance with the 10-day regimens, Dr. Casey said at the conference, sponsored by the American Society for Microbiology.

The only short-course regimens currently approved by the Food and Drug Administration for treating strep throat are 5 days of treatment with azithromycin, cefdinir, or cefpodoxime, Dr. Casey told FAMILY PRACTICE NEWS.

The metaanalysis included additional studies that compared short-course regimens that used penicillin, amoxicillin, or a macrolide against 10 days of treatment with penicillin or another comparator drug.

The results showed that the short-course penicillin regimens (5 or 7 days' duration) were inferior to a 10-day regimen and that 6 days of treatment with amoxicillin or 5 days of treatment with a macrolide was similar in efficacy to a 10-day regimen. ■

Neuropathy Case Linked to Metronidazole

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

SAVANNAH, GA. — Brief metronidazole treatment has been associated with a case of reversible autonomic neuropathy in a 15-year-old girl, Lisa Hobson-Webb, M.D., reported in a poster at the annual meeting of the American Association of Electrodiagnostic Medicine.

"This has never been reported in the literature," said Dr. Hobson-Webb of Wake Forest University, Winston-Salem, N.C. "There are cases of motor or sensory neuropathies after a large dose or an extended treatment period but not any reports of autonomic involvement."

Dr. Hobson-Webb presented a case study of a 15-year-old black girl who had taken a 3-day course of metronidazole for bacterial vaginitis; she had been unresponsive to a prior course of trimetho-

prim-sulfamethoxazole. Within 2 weeks of initiating metronidazole treatment, the girl developed such a severe, burning pain in the soles of her feet that she found relief only by keeping her feet and lower legs submerged in buckets of ice water at all times. "She was even sleeping like this," said Dr. Hobson-Webb. The patient did not respond to pain medication, including oxycodone.

Examination revealed pitting edema and erythema to the mid-calf bilaterally. When removed from the ice water, the lower legs and feet rapidly became hot and erythematous. Her perception of temperature was reduced to the upper third of the shin bilaterally. Deep tendon reflexes and strength were maintained. The patient's past medical history was unremarkable, and an examination showed no medical cause for her pain.

Nerve conduction studies showed re-

duced sensory nerve and compound muscle action potential. Reproducible sympathetic skin potential responses could not be obtained in the right foot, and only diminished responses were seen in the right hand.

"Based on these results, she was diagnosed with a severe sensorimotor and autonomic neuropathy, which was suspected to be a toxic reaction to the metronidazole," Dr. Hobson-Webb said.

The patient was placed on gabapentin and carbamazepine for pain control, and improved over several weeks. After 3 months, her neuropathy had clinically resolved and conduction studies showed normalization of autonomic function.

The mechanism underlying neurotoxicity of metronidazole is unclear. However, Dr. Hobson-Webb said, it's thought to be related to decreased protein synthesis in the nerve. ■



CME Café.com

Visit www.CMECafé.com to view the CME Café's two latest free multimedia CME programs:

Managing Sleep Disturbances: Evolving Concepts and Future Therapies

Supported through an unrestricted educational grant from Sanofi-Synthelabo

Current Cholesterol Management: Case Studies

Supported through an unrestricted educational grant from Merck/Schering-Plough Pharmaceuticals

Estimated time to complete each educational activity: 1.5 hours
Release Date: October 14, 2004
Expiration Date: October 14, 2005
Fee: Free of charge

Both programs are jointly sponsored by the Texas Academy of Family Physicians and Healthology, Inc.