Quinolones Found Comparable in Elderly Patients With CAP

BY DOUG BRUNK
San Diego Bureau

SEATTLE — Elderly patients with community-acquired pneumonia who took moxifloxacin were more likely to have symptom relief by day 3-5 of therapy than were those who took levofloxacin, results from a prospective trial have found.

Investigators observed trends that favored moxifloxacin (Avelox) over levofloxacin (Levaquin) in severely ill patients and those aged 75 years and older, but all other efficacy and safety comparisons between the two agents were similar, Michael Niederman, M.D., commented at the annual meeting of the American College of Chest Physicians.

"The safety and efficacy of both of these drugs was demonstrated and shown to be equivalent," he said in a later interview.

Dr. Niederman and his associates studied 281 patients aged 65 years and older who were hospitalized with community-acquired pneumonia and required initial IV therapy.

Most patients had multiple comorbidities, especially cardiac disease (74%), chronic obstructive pulmonary disease (63%), and diabetes (29%). Also, 18% had severe pneumonia as defined by American Thoracic Society criteria. Slightly more than half of the patients (51%) were male, and their mean age was 78 years, said Dr. Niederman of Winthrop University Hospital, Mineola, N.Y.

At baseline, all patients had a 12-lead electrocardiogram and a repeat ECG at 72 hours. In the interim, they had a 72-hour period of Holter monitoring.

Of the total group, 141 patients were randomized to moxifloxacin 400 mg/day, and 140 received levofloxacin 500 mg/day. Nearly all patients (98%) in the moxifloxacin group had symptom relief by day 3-5 of therapy, compared with 90% of patients in the levofloxacin group.

Overall cure rates were similar between the moxifloxacin group and the levofloxacin group (93% vs. 88%). The cure rates among patients with mild to moderate pneumonia at baseline were also similar (93% vs. 89%).

The cure rates among patients with severe pneumonia were 95% in the moxifloxacin group, compared with 85% in the levofloxacin group—a difference that trended toward statistical significance, Dr. Niederman said.

Cure rates among patients aged 75 years and older were higher in the moxifloxacin group, compared with those in the levofloxacin group (95% vs. 90%), but the difference was not statistically significant.

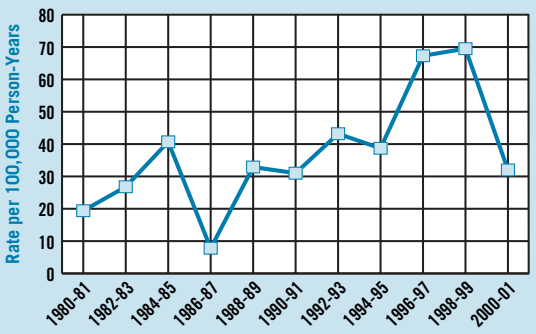
Cardiac events considered by the investigators as potentially drug-related were reported in 1% of patients in the moxifloxacin group, compared with 4% of patients in the levofloxacin group. The differences were not statistically significant.

Dr. Niederman called the study unique "because it deals exclusively with older people with pneumonia, many of whom had heart disease and had very close cardiac monitoring to document the safety of these drugs."

The study was sponsored by Bayer Pharmaceuticals Corp., which is the manufacturer of moxifloxacin. ■

DATA WATCH

Pneumonia and Influenza Hospitalizations



Note: Based on an annual average of 94,735 primary hospitalizations for pneumonia and influenza.
Source: JAMA 2004;292:1,333-40

KEVIN FOLEY, RESEARCH/ANGIE RIES, DESIGN

Combined Gargle Test/PCR Assay Is 88% Sensitive for Pneumocystis

BY ROBERT FINN
San Francisco Bureau

SAN FRANCISCO — A 60-second oropharyngeal saline wash coupled with a quantitative polymerase chain reaction assay is 88% sensitive and 85% specific in the diagnosis of *Pneumocystis* pneumonia, Laurence Huang, M.D., reported at a meeting on HIV management sponsored by the University of California, San Francisco.

In the blinded study, investigators compared quantitative touch-down polymerase chain reaction (QTD PCR) results with bronchoscopy with bronchoalveolar lavage (BAL), which is widely considered to be the standard for the diagnosis of *Pneumocystis* pneumonia (PCP).

The sensitivity of sputum induction has been decreasing, reaching a low of 57% in 63 cases at San Francisco General Hospital in 2003 and 2004.

A total of 113 cases of PCP among 108 patients were included in the study (J. Infect. Dis. 2004;189:1679-83).

The use of QTD PCR testing is a way to increase the specificity of the DNA amplification procedure.

In recent years, the sensitivity of bronchoscopy with BAL has proved to be at least 98%, with a specificity of 100%, said Dr. Huang of UCSF and San Francisco General Hospital. The problem is that bronchoscopy with BAL is a relatively lengthy, uncomfortable, and invasive procedure.

Sputum induction takes only 30 minutes, and studies early in the HIV epidemic pegged its sensitivity at somewhere between 74% and 83%. But for unknown reasons, the sensitivity of sputum induction has been decreasing, reaching a low of 57% among 63 cases at San Francisco General in 2003 and 2004. Its specificity remains close to 100%, however.

In the 60-second gargle test, the collection procedure is "as low tech as you can get," Dr. Huang said, requiring only a sterile specimen cup and 10 mL of sterile saline. It's therefore suitable for use in remote areas or resource-limited settings such as those in developing countries.

The low-tech collection procedure is coupled with a very high-tech detection procedure, namely PCR amplification, that's capable of spotting the DNA from a single organism of *Pneumocystis jiroveci*.

The test's sensitivity increased to 92% in patients who had received empiric treatment for PCP for 1 day or less, but its specificity declined to 75%.

Compared with the 100% specificity of bronchoscopy with BAL and sputum induction, the 75%-85% specificity of the gargle test is its main drawback. Dr. Huang suggested that people without PCP who nevertheless test positive by the gargle test may be nonsymptomatic carriers who are colonized with *P. jiroveci*.

He noted that, according to some accounts, as many as 40% of health workers who are exposed to HIV-infected patients may be colonized with the organism.

Dr. Huang declared that he has no financial relationship with a commercial entity. ■

Primary Care Survey Shows Antibiotic Overprescribing Is Still a Problem

BY DEEANNA FRANKLIN
Senior Writer

WASHINGTON — Physicians understand that overuse of antibiotics is contributing to rising resistance rates, yet a large minority of physicians continue to prescribe antibiotics for viral illnesses, Mohmad G. Fakih, M.D., reported in a poster presentation at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

Dr. Fakih and his colleagues approached primary care physician members of Blue Cross Blue Shield of Michigan, and 277 physicians out of a total of 875 completed surveys. Among the respondents, 73 were pediatricians, 126 were family physicians, and 58 were internists. They were questioned on age; specialty; years and type of practice; geographic region; views regarding their education, medical knowledge, and management of upper respiratory infections (URIs); antibiotic use and resistance; and patient expectations.

Regarding their management of URIs, 74.6% of family physicians, 81.0% of internists, and 90.1% of pediatricians felt very secure in rating their knowledge at above average to excellent.

When queried about their treatment approach for URI with pharyngitis, with or without exudates and/or lymphadenopathy, internists were more likely than were family physicians and pediatricians to prescribe antibiotics when more symptoms were present.

Among doctors practicing for less than 10 years, 43% believed that managed care affected their choice of antibiotics, compared with 24% of physicians practicing more than 10 years who felt this way. Also, physicians practicing 10 years or less were more likely to believe patients were satisfied once they were given an antibiotic prescription (56.6% vs. 40.4%).

Antibiotic prescribing appeared to hinge on symptoms. Physicians offered antibiotics to more symptomatic patients, with 89.3% of them using diagnostic tests, such as a rapid antigen detection test or culture, said Dr. Fakih, a specialist in infectious diseases at St. John Hospital and Medical Center in Detroit.

"Physicians agreed that overuse of antibiotics is the major factor in increasing resistance; however, more than half of them would give an antibiotic when the diagnosis is not certain," the researchers said.

A big surprise in the study was that 55% of those surveyed thought that penicillin resistance to group A streptococci was emerging. "There has never been any evidence of resistance to penicillin," Dr. Fakih said in an interview with this newspaper.

The conference was sponsored by the American Society for Microbiology. ■