Correspondence

Telithromycin and Myasthenia Gravis

Sr—We would like to provide clarification and some additional information regarding the editor’s comment [1] accompanying the Reuters news item on telithromycin (Ketek; Aventis) [2]. The Reuters news item reported accurately that Aventis in Germany (and in other countries where telithromycin has been launched) recently issued a warning to health care professionals advising them of the potential for exacerbation of myasthenia gravis (MG) in patients with pre-existing MG who were receiving telithromycin. This provider notification resulted from a review of the Aventis drug safety database, which initially revealed 8 cases of MG exacerbation in patients taking telithromycin for treatment of respiratory tract infection. Aventis proactively revised the core prescribing information for telithromycin to include a precautionary statement about the use of telithromycin in patients with MG, on the basis of findings from active pharmacovigilance and postmarketing drug surveillance.

The editor [1] acknowledged that MG exacerbations have also been reported in association with other classes of antibiotics, including β-lactams, fluoroquinolones, and aminoglycosides [3], as well as with other classes of medications [4]. For clarification, it is important to note that preclinical studies performed to date have not shown an effect of telithromycin on neuromuscular junction transmission at concentrations of up to 100 times the therapeutic free-drug concentration.

The precaution is specific to patients with MG; the overall safety profile of telithromycin remains unchanged. Telithromycin is not recommended for patients with MG, unless other therapeutic alternatives are available, patients with MG who are receiving telithromycin must be monitored closely.

Telithromycin was first launched in Germany in 2001 and is now available in the European Union and other parts of the world, including Latin America; telithromycin was recently approved for use in Canada. To date, >4,000,000 courses of telithromycin have been prescribed worldwide.

Following the positive recommendation from their Anti-Infectives Division Advisory Committee, the US Food and Drug Administration (FDA) issued a second approvable letter for telithromycin in January 2003, in which additional analyses and information but no clinical studies were requested before marketing approval (information can be found at the FDA Web site [5]). Aventis has now provided the requested information to the FDA and is currently working to secure approval of telithromycin and to bring the benefits of telithromycin to US patients as soon as possible.

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Cardiac Dysrhythmia following Smallpox Vaccination

Sr—The growing threat of bioterrorism has led to the reintroduction of smallpox vaccination programs [1]. The potential dermatologic and neurologic adverse events associated with the vaccine have raised significant concerns among health care professionals and vaccine recipients [1, 2]. In the past, cardiac complications, predominantly myocarditis and pericarditis, have been rare occurrences [3–5]. However, since the recent vaccination program has been undertaken, there have been reports of adverse cardiac events following the administration of the vaccine, including myocarditis, pericarditis, dysrhythmias, angina, and myocardial infarctions [4]. Whether there is a direct correlation between vaccination and cardiac adverse events remains unclear. We describe a woman who developed symptomatic trigeminy after receiving the smallpox vaccine.

A 29-year-old Asian female health care professional presented to the hospital for evaluation of recurrent palpitations. The onset of palpitations occurred 10 days after receiving the smallpox vaccine (she had previously received smallpox vaccine as a child). There were no associated cardiac symptoms, nor was there a history of cardiac disease. Findings of a physical examination were normal. Results of electrocardiography and thyroid function tests were normal, and serum electrolyte levels...
were within normal limits. A 2-dimensional echocardiogram showed normal ejection fraction and valvular function, without evidence of pericardial effusion. A cardiac event recorder showed normal sinus rhythm, with frequent episodes of trigeminy associated with symptoms of palpitations. Results of an exercise stress test were suboptimal but showed no evidence of inducible ischemia.

Therapy with atenolol produced fatigue, and verapamil was substituted. Since treatment with verapamil, a calcium channel blocker, was initiated, the frequency of palpitations has decreased. At the time of writing, it has been 12 weeks since the patient received the smallpox vaccine.

Historically, generalized vaccinia and encephalitis have been the most concerning complications associated with smallpox vaccination [1, 2]. In general, cardiac adverse events associated with smallpox vaccine or any other vaccine are rare [3, 5]. Although not proven, there has been a well-documented casual association between smallpox vaccine and “myopericarditis,” a term referring to the presentation in patients of myocarditis, pericarditis, or both [4, 6]. This term has been used by the Centers for Disease Control and Prevention (CDC) for surveillance purposes to describe persons reported to have chest pain and electrocardiogram changes within 30 days after vaccination and without evidence of other causes [7]. Dysrhythmia may be a manifestation of inflammation within the myocardium or myocardial conduction system and has now been included in the case definition of myopericarditis [8].

Recently, significant cardiac events (angina and myocardial infarction) associated with coronary artery disease following smallpox vaccination have been reported. However, the causal connection has been difficult to confirm, because most of these patients had several preexisting risk factors for coronary artery disease [4]. Autopsy findings of reported fatalities failed to demonstrate disseminated vaccinia infection or myopericarditis [8].

There have been at least 7 cases of post-vaccination cardiac dysrhythmia (supraventricular tachycardia, atrial dysrhythmias, and frequent or sustained premature ventricular contractions) reported to the CDC [7]. Most cases have been associated with clinical myopericarditis and have ranged from mild to severe, whereas several have been asymptomatic in nature [7].

Although our patient did not have overt signs of myopericarditis manifested by chest pain and ST segment changes, she did have a new onset of symptomatic palpitations after receiving the smallpox vaccine. In the absence of any other overt explanation, her symptoms may have been manifestations of mild or asymptomatic myopericarditis.

Persons receiving smallpox vaccine should be informed that myopericarditis may be associated with the vaccine and that medical attention should be sought for chest pain, shortness of breath, or other symptoms of cardiac disease. Because a causal relationship between smallpox vaccination and serious cardiac events cannot be excluded, the CDC guidelines recommend that patients with a history of cardiac problems should not receive the smallpox vaccine [4].

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References


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Clinical Infectious Diseases 2003; 37:1579–80
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Evidence in the Treatment of Head Lice: Drowning in a Swamp of Reviews

Sir—We read with interest the article by Jones and English [1] entitled “Review of Common Therapeutic Options in the United States for the Treatment of Pediculosis Capitis.” We would like to point out that there are currently no uniform guidelines on which a review of head lice treatment should be based, which has led to the publication of conflicting reviews in major medical journals, such as Lancer, New England Journal of Medicine, British Medical Journal, and Cochrane Database of Systematic Reviews (Cochrane Reviews) [2–6].

Two systematic reviews of the topical treatment of head lice with insecticides were published, one by Vander Stichele et al. [5] in 1995 and another in a Cochrane review by Dodd in 1999, which was later revised in 2001 [6]. The 2 reviews used different methodological approaches and had different results. We noticed that the current review by Jones and English [1] was based on the 1999 Cochrane review and that the earlier review by Vander Stichele et al. [5] was completely ignored.