between patients with or without AF after noncardiac surgery. In two studies, male gender was significantly more prevalent among patients who developed postoperative AF. Men may have larger atria and hence a greater likelihood for AF. In contrast to the general population, however, the pathophysiology of our patients likely differs with respect to having obesity or diastolic dysfunction as important risk factors for postoperative AF.

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REFERENCES

Mycobacterium tuberculosis in a Saudi Arabian Hospital

To the Editor:

We read the article by Al-Tawfiq et al (November 2005)1 addressing the susceptibility of Mycobacterium tuberculosis in the Eastern Province of Saudi Arabia. We would like to make the following points:

1. Multidrug-resistant M tuberculosis (MDR-TB) was defined “as resistance to two or more first-line agents.” This is an erroneous definition. MDR-TB as defined by Centers for Diseases Control and Prevention, the World Health Organization, and the International Union against Tuberculosis and Lung Disease is resistance to at least isoniazid and rifampicin with or without resistance to other agents.2,3

2. The authors indicated that there was only one report on M tuberculosis susceptibility from the Eastern Province.4 In fact, Al-Jama et al5 reported on the susceptibility of 1,239 isolates of M tuberculosis from the Eastern province in 1999.

3. The rate of ethambutol resistance was higher than previously reported rates from all regions of Saudi Arabia. In our report6 of 764 isolates from a single institute; the majority of the patients were Saudis. The reasons for such high rates of ethambutol resistance in the report by Al-Tawfiq et al need to be addressed.

4. The report does not indicate the proportion of patients with a new diagnosis of tuberculosis or have previously received antituberculosis chemotherapy. This is the most important risk factor for higher resistance rates. The rates of resistance can be several folds higher.7

5. Finally, data supporting the conclusion that “resistance to isoniazid showed decreased rate over the study period from 20 to 5.7%” were not presented in this report.

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REFERENCES

To the Editor:

This letter is a reply to the points raised by Dr. Alrajhi regarding our recently published article in CHEST (November 2005).1 The terminology used for resistant tuberculosis (TB) in the literature has included multidrug resistant (MDR), two-drug resistant, and polyresistant. MDR-TB refers to a subgroup of polyresistant organisms. We agree that MDR-TB is usually defined as resistance to at least isoniazid and rifampin with or without resistance to other agents. This is based on the fact that isoniazid and rifampin resistance is the most important type of resistance to first-line agents. However, the term MDR-TB has also been used to describe resistance to any two drugs.2 The variable use of MDR-TB was highlighted in an editorial comment by Sbarbaro,3 who noted that the term multidrug-resistant is used to identify organisms that are resistant to both isoniazid and rifampicin in the United States but is used more commonly in the rest of the world to include organisms that are resistant to any two or more antitubercular drugs.2 We clearly defined multidrug resistance as resistance to two or more first-line agents. Our data also show that the rate of MDR is very low. If the definition of MDR is restricted to resistance to isoniazid and rifampicin, the rate of MDR-TB in the study would be 0.37 to 0.7%, as shown in Table 2 in our study.1

Unfortunately, the article by Al-Jama et al was not referenced on MEDLINE, and we did not come across that study. It was not our intent to omit the review of any pertinent published data, and
we apologize for the omission. We also thank Dr. Alrajhi for bringing this study to our attention.

The rate of ethambutol resistance in our study was 7.5%, which is higher than the rate found in other studies from Saudi Arabia, including the study by Alrajhi and Al-Barrak. However, the resistance rate to ethambutol found in our study is not very different from those reported from at least one region of Saudi Arabia. For example, the rate of ethambutol resistance in Jeddah was 6.9%. However, the exact reason for such a resistance rate could not be identified from the retrospective study.

The rates of resistance to antituberculous medications differ between newly diagnosed patients with TB and those who have received treatment. We could not track the details of any previous treatment. However, the majority of the patients had not received previous treatment for TB during the study period.

Although we stated in the abstract of our study that “resistance to isoniazid showed decreased rate over the study period from 20 to 5.7%,” the specific data were not shown in the study. We apologize for not including the specific data in the article.

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3 Sbarbaro JA. “Multidrug”-resistant tuberculosis: it is time to focus on the private sector of medicine. Chest 1997; 111:1149–1151