

**On the Article “Resistant *Mycobacterium tuberculosis* Strains From Immigrants in the Community of Madrid: Current Assessment”**

**To the Editor:** We read with interest the article by Sanz Barbero and Blasco Hernández,<sup>1</sup> on the current situation with regard to resistant strains of *Mycobacterium tuberculosis* in immigrants in the Community of Madrid, which was published in *Archivos de Bronconeumología*. We would like to offer a few comments. As we understand it, the 221 strains isolated with a sensitivity analysis on which the study was based are from immigrants. Of the 31 resistant strains, 24 (12.6%) involved resistance in new cases and 6 (27.3%) resistance in previously treated cases.

We disagree with the authors when they state at the end of their discussion: “There are no studies to date on resistance in previously treated foreign-born cases.” We can assure you that there are. In our study published in *Medicina Clínica* entitled “Impact of immigration on drug resistance to *Mycobacterium tuberculosis* in Castellon (Spain): 1995-2003,” we had already analyzed resistance taking into account whether or not patients had already received treatment.<sup>2</sup> In our immigrant population, all strains were from new cases. We found no previously treated cases among immigrants. The low proportion

of resistance in previously treated cases in your study is surprising, as is their nonexistence in ours. You state (and we completely agree): “This information stands out because at first we might expect that the rates of resistance among previously treated foreign-born cases would be higher than in the general population, given the difficulties of both diagnosis and access to medication that might be assumed for these immigrants’ countries of origin.” Nevertheless, although we believe, as do you, that it would be reasonable to expect a higher rate of resistance in previously treated cases among immigrants, this is not so, either in our study or in yours. We should make every effort to ascertain the real situation concerning the resistance of *M tuberculosis* in the foreign-born population of Spain, which we believe to be substantially different between one autonomous community and another. Whereas a large number of immigrant patients in Madrid do not have health care coverage, in our area most do. The foreign-born population of the Madrid study has very diverse geographic origins and males account for the majority. By contrast, the immigrant population in the Castellón study contains a higher proportion of women and is not as diverse, since one group comes from the same area in Rumania (Targoviste). Many of these immigrants are women who work, have settled here, and behave very differently from immigrant groups in other areas of Spain, where there is greater geographical diversity as to points of origin among newcomers and also greater mobility.

In our study, total resistance was 3.7% for the autochthonous population and 13.1% for immigrants. (Resistance in new cases was found in 3.2% of the Spanish population and 13.9% of immigrants. Resistance in previously treated cases was found in 6.7% of the Spanish population and 0% of immigrants.)

It is clear that there is a greater rate of resistance to *M tuberculosis* in immigrant patients than in autochthonous patients. Owing to the rising number of immigrant cases and the gradual integration of this population group in Spanish society for various reasons (domestic work, employment in the service sector, schools, health service, social services, etc), it is reasonable to expect strains of *M tuberculosis* to be transmitted from the immigrant population to the autochthonous population and vice versa. A nationwide study would tell us exactly where we stand with *M tuberculosis* resistance.

**Margarita Marín Royo,<sup>a</sup>  
María Dolores Tirado Balaguer,<sup>b</sup>  
and Rosario Moreno Muñoz<sup>b</sup>**

<sup>a</sup>Sección de Neumología, Hospital General,  
Castellón, Spain

<sup>b</sup>Servicio de Microbiología, Hospital General,  
Castellón, Spain

1. Sanz Barbero B and Blasco Hernández T, por el grupo de colaboradores del grupo ATBIM. Situación actual de las resistencias de *Mycobacterium tuberculosis* en la población inmigrante de la Comunidad de Madrid. *Arch Bronconeumol*. 2007;43:324-33.
2. Tirado Balaguer MD, Moreno Muñoz R, Marín Royo M, González Morán F, Pardo Serrano F, García del Busto Remón A, et al. Impacto de la inmigración en las resistencias de *Mycobacterium tuberculosis* en la provincia de Castellón: 1995-2003. *Med Clin (Barc)*. 2006;126:761-4.