

# HCV genotype 4 circulating in the city of Franca, São Paulo State, Brazil

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The hepatitis C virus (HCV) genotype distribution worldwide depends on the geographic region<sup>1</sup> and although genotype 1 is the most prevalent in Brazil, followed by types 3 and 2, other genotypes have been reported in the country, albeit with a low occurrence rate.<sup>2</sup> Identification of the viral genotype has epidemiological, clinical and laboratory importance, as it is necessary for therapeutic indication, diagnostic assay target definition and indicates infection progression.<sup>3</sup>

In the city of Franca, in the countryside of São Paulo State, Brazil, one case of hepatitis C virus genotype 4 (HCV-4) was identified in a 38-year-old male patient from the town of Paraguaçu Paulista, whose HCV infection had been confirmed since 2005. The patient reported the use of intravenous drugs, having been an inmate for several years and having travelled around the state many times. He was currently living in the city of Franca.

Clinically, the patient had a confirmed case of pulmonary tuberculosis. The patient's circulating virus was genotyped by reverse hybridization and the result disclosed the presence of viral genotype 4c/4d. This result was confirmed by automated sequencing of the genomic regions 5'UTR, NS5B and core.

The analysis of the regions sequenced through HCV-Blast available at the database *The Los Alamos HCV sequence* (<http://hcv.lanl.gov>) confirmed the presence of genotype 4; however, the subtyping turned out to be 4a, which was in disagreement with the subtyping obtained through reverse hybridization. Discordant results in genotype 4 subtyping through sequencing and reverse hybridization have been previously reported by Zekri *et al.*,<sup>4</sup> as well as in other genotypes.<sup>5</sup>

Case reports as the one described here are important to characterize the epidemics and to detect variation in genotype distribution in the country, as well as to promote epi-

miological surveillance and acquire information about the virus introduction and transmission routes in the country.

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