In the study by Liang et al. [2001. Analysis of constant rate period of spray drying of slurry. Chemical Engineering Science 56, 2205-2213] the Darcy flow of liquid through a pore system of primary particles to the surface of a slurry droplet was applied for the constant rate period. Steep primary particle concentration gradients inside -25 μm droplets with a primary particle size of 0.2 μm were observed. Unfortunately, the boundary condition at the droplet surface for the parabolic second-order PDE did not conserve the solid mass in the droplet, and the plots for the primary particle concentration profiles in the droplets were incorrect. In this letter we derive the correct boundary condition equation. Furthermore, we show that the primary particle concentration profiles inside the droplets are flat when the primary particles have a size of 0.2 μm. We conclude that the model presented by Liang et al. is unable to predict the formation of hollow particles. (c) 2005 Elsevier Ltd. All rights reserved.