**Author contributions**

All authors listed, have made substantial, direct and intellectual contribution to the work, and approved it for publication. Daniela Fonseca e Silva and Inês Baldaque designed the study, analysed the results and wrote the paper. Joana Marinho Dias collaborate on the experiments; Paulo Dias Silva, Ana Torgal and Sara Braga, collaborated of the discussion of the results and on the writing of the manuscript.

Diana Rocha, Álvaro Oliveira, Carlos Ochoa and Luís Rocha collected the samples and follow up the patients.