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CHARACTERIZATION OF THE IMPLANT-ABUTMENT INTERFACE WITH A DYNAMIC MICROTORQUEMETER

Mucsi, C.S.(1); Rossi, J.L.(1); Nogueira, E.J.(1); Aranha, L.C.(1); Jesus, E.R.B.(1); Alencar, M.C.(1); Instituto de Pesquisas Energéticas e Nucleares(1); Instituto de Pesquisas Energéticas e Nucleares(2); Instituto de Pesquisas Energéticas e Nucleares(3); Instituto de Pesquisas Energéticas e Nucleares(4); IPEN(5); Instituto de Pesquisas Energéticas e Nucleares(6);

The insertion of odontological implants as well as its abutments represent an important factor to the components performance in patient oral rehabilitation. This work presents the efforts in the characterization of the interfaces between implant and abutment of two different families of implants with the use of a specifically developed microtorquimeter. A set of tests were performed torqueing the abutment into the implant with subsequent detorqueing. The strain caused on the microtorquimeter torque bar were recorded in a myDAQ National Instruments equipment and then processed and analysed in order to identify signatures on the signal and relate them to mechanical behavior of the interfaces. Results indicate an important difference between the signals of the two families and lead the authors to identify possible failures in performance related to them.