

Molecular highlights in Peri-implantitis

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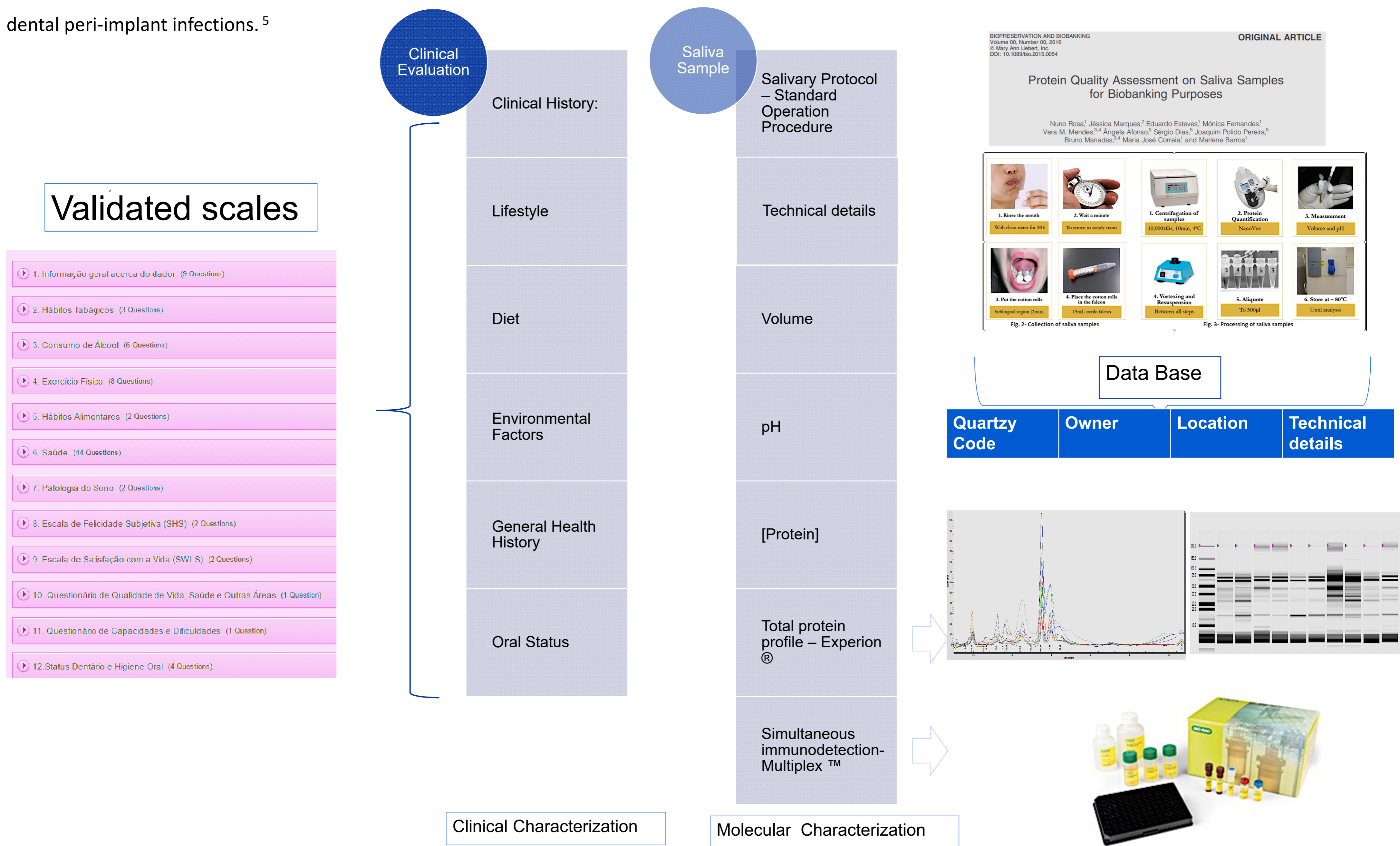
Introduction

Dental implants are one of the most frequently used treatment options for tooth replacement. Approximately 30% of patients with dental implants develop peri-implantitis, which is an oral inflammatory disease.¹⁻⁴

As established in 1993 at the First European Workshop on Periodontology, peri-implant disease is a collective term for inflammatory processes in the implant surrounding tissues. *Peri-implant mucositis* was defined as a reversible inflammatory process in the soft tissues surrounding a functioning implant, whereas *peri-implantitis* is an inflammatory process additionally characterized by loss of peri-implant bone.²⁻⁴

The diagnose of Peri-implantitis is based on clinical, radiographic, microbiological and biological information. Several clinical studies use molecular biology assays to identify proteins in crevicular fluid that will be the initiation and progression of Peri-implantitis disease, for the purpose of these study we used saliva sample.⁴⁻⁵

The aim of this study is to correlate the molecular and clinical characterization of peri-implantar disease in order to improve our knowledge in the molecular pathophysiology of peri-implant infections. For the development of future therapeutic strategies, it is essential to understand the molecular pathophysiology of human dental peri-implant infections.⁵



Goal

Identify factors that affect molecular mechanisms which are altered in Peri-implant disease through tools used in systems biology.

On going work

So far a database with 78 questionnaires using validated scales and the correspondent saliva samples obtained with standardized protocols, are being studied to obtain the stratification of patients which will enable the choice of those for which a Multiplex detection should be performed.

The next step is to correlate the clinical and molecular characterization to identify altered molecular mechanisms that characterize the Peri-implantar disease.

Bibliography

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