



Academy of Prosthodontics Annual Scientific Session San Diego, California | June 1 – 4, 2022

Program Speaker – Jean-Francois Brochu

Title

Review of Three-Implant-Supported Full-Arch Fixed Mandibular Restorations

Abstract

The edentulous mandible presents significant challenges considering the amount and rate of bone loss, in addition to the limited surface area for a conventional denture to have adequate stability, support and retention. Early protocols suggested placement of five implants to support and retain a fixed complete denture. With today's advancement of research and development in implantology, different approaches have been suggested and reviewed in the dental literature. The all-on-four protocol is well documented in the scientific literature to be a valid graftless alternative treatment to restore the edentulous mandible with a fixed complete prosthesis using an immediate loading protocol.

Considering the increased proportion of the aging population, and taking into account the socio-economic factors of edentulism as they relate to low income, there is a need to develop a clinical protocol that is more affordable and can benefit a wider range of the population, and that requires a less invasive surgical procedure. A protocol that provides a similar prosthetic outcome with positive effects on patient satisfaction and quality of life.

Few articles have described an approach consisting of restoring the edentulous patients using a conventional tissue-supported maxillary removable prosthesis opposing an immediately loaded mandibular fixed prosthesis supported by three implants. Such an approach has the advantage of decreasing the number of implants and therefore the cost. It has been reported to be a successful simplified treatment. A review of these studies will be presented as well as the preliminary results of an ongoing study on that topic conducted by the presenter.

Learning Objectives

1. Update the literature on three-implant-fixed mandibular restorations
2. To familiarize attendees with preliminary results of an ongoing study on immediate loading of a final fixed prosthesis on three implants in the mandible
3. To learn of a procedure to fabricate a final fixed prosthesis on three implants within 7 to 10 days

Biography

Dr Jean-François Brochu obtained a DMD from the Université de Montréal in 1995. Following a one-year multidisciplinary residency program at the Royal Victoria Hospital (McGill University), and four years in private practice, he went on to obtain a Master of Science in Prosthodontics degree at the University of Toronto and received a Fellowship in prosthodontics from the Royal College of Dentists of Canada in 2003.

After four years working in the Middle East, he started a private practice in Montréal. He is also a part-time assistant professor at McGill University, teaching the General Practice Residency Program. He has published and presented mainly on the surgical and prosthetic aspects of immediate loading of implants.