



A new concept and design for an alloplastic total TMJ prosthesis using PEEK LTL 20% BA

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The TMJ (temporomandibular joint) is a complex joint, with distinct anatomical and functional characteristics, difficult to treat. Many authors, from the early twentieth century, reported techniques for TMJ reconstruction, aiming at returning its shape and ideal function. Many prototypes have been developed in pursuit of the ideal prosthesis, which adheres to the principles of biomechanics and biocompatibility, with good long-term results and lower cost. Based on 6 years 8 months of experience (2012 to 2018), with 12 patients with 19 surgeries, (bilateral and unilateral), who underwent TMJ reconstruction using full custom prosthesis in PEEK LTI20%Ba on PEEK LTI20%Ba, with a new design, shorter and lighter than the prosthesis found in the market. With a new surgical technique performed, less traumatic, less surgical time, than the technique performed by others surgeons used in the world. Among the new materials, highlights PEEK LT120%Ba, is a polymer derived from petroleum (Invibio, UK), thermoplastic, biocompatible, inert and high stability and resistance. Successfully used as the material of choice for orthopedic implants and spine. This study demonstrates the feasibility of a custom prosthesis in PEEK on PEEK LT1 20%Ba, with the protocol developed by Genovesi, W 2012.

Biography: Dr. Genovesi is an Oral & Maxillofacial Surgeon at TMJ arthroscopist since 1988, He is Head of TMJ Fellow program at Sao Luiz - Rede D'or Hospital. Also, he is Head of Oral & Maxillo Facial at Hospital 9 de Julho from 1990 till 2019. He developed Double anchor technique for disc displacement & developed TMJ prosthesis in PEEK. He is Coordinator of TMJ program at AMO from 2000 to 2007.

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