

Jordan University of Science and Technology

Up-to-date status of craniofacial implants - A literature review

Authors: Muhanad M. Hatamleh; Jaradat E; Nawafleh N; Bibars A; Hourani Z; Jason Watson

Abstract: Craniofacial implants have evolved the practice of maxillofacial prosthetics by enhancing prosthesis design, aesthetics, retention and patient self-esteem. This review aims to analyse past papers reporting on the use of craniofacial implants as well as factors affecting implants success. Success and lifespan of implants varied with bone type, location, radiotherapy exposure and patient hygiene. Implants inserted in the mastoid bone showed highest success rates followed by those inserted in the inferior nasal bone. Those inserted in the inferior orbital rim showed the lowest success due to low bone quality and quantity. Radiotherapy compromised bone quality and vasculature, hence reducing implant-bone integration and subsequent livelihood of the implant. Hygiene and cleaning of the implant site and abutment is crucial to prevent implant thread exposure and bacterial adhesion, which could lead to implant failure. Regardless of these factors, studies with shorter follow up periods generally reported higher success rates than those with longer follow up periods