

COMPARISON OF THE VARIOUS PHYSICAL, MECHANICAL AND BIOCOMPATIBILITY OF HA COATINGS SPRAYED BY DIFFERENT COATING TECHNIQUES

Gurbhinder Singh

Guru Kashi University, Talwandi Sabo

Hydroxyapatite (HA) coatings have attracted attention of all concerned researchers due their excellent biocompatibility in the human body. It has been inferred in the existing published literature that by spraying HA on conventionally used metallic bio implants we can enhance biocompatibility and reduce healing time up to large extent. Although many techniques like Thermal Spray, Electrophoretic, Sol Gell, Vapor Deposition, Bio-Menttic, and Laser Deposition etc. are used to deposit HA coatings on metallic implant materials. It has been revealed by the previous literature that each technique has their own advantages and disadvantages when we critically evaluate and compare physical and mechanical behavior and biocompatibility of these coatings. In this paper large number of HA coatings sprayed by different techniques which are presented in published literature are compared to evaluate the impact of coating spray techniques on physical, mechanical and in-vitro behavior of coatings.

Keywords: Coatings Techniques, Hydroxyapatite, Bio Implant, Bio Compatibility