48. Redifining precision with methods of synthesis of silver nanoparticles and the uses in prosthodontics-a review

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Objective:in recent years, nanoparticles of noble metals such as gold, silver and palladium have drawn immense attention due to the wide range of new applications in various fields of industry. Particularly, silver nanoparticles have significant interest in medical and dental applications such as very effective antibacterial agents without the toxic effects, other applications being ag-based wound dressings, ag-coated medical devices such as catheters, bone cements, in gels, lotions, cosmetics, in dental restorative materials, endodontic cements, dental implants' caries inhibitory agents, and in prosthesis. This paper reviews the use of agnps as an antimicrobial in prosthodontics. . Methods:. Systematic searches were carried out in web of science (isi), google, pubmed, scifinder and espacenet databases .. Results:. A total of 100 peer-reviewed articles were reviewed. Most of them were published in the period of 2012-2017, demonstrating that this topic currently represents an important trend in dentistry research. In vitro studies reveal the excellent antimicrobial activity of agnps when associated with dental materials such as nanocomposites, acrylic resins, resin co-monomers, adhesives, intracanal medication, and implant coatings. Moreover, agnps were demonstrated to be interesting tools in the treatment of oral cancers due to their antitumor properties.. Significance:. The literature indicates that agnps are a promising system with important features such as antimicrobial, anti-inflammatory and antitumor activity, and a potential carrier in sustained drug delivery.

DOI: 10.4103/0972-4052.246552