Scanning electron microscope and applications in Oro-Dental research

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Scanning Electron Microscopy is now a well recognized technique in both biological and materials science specialties. The aim was to review the applications of Scanning Electron Microscopy (SEM) in dentistry and to discuss the basics of Scanning Electron Microscopy (SEM), for the benefit of prospective researchers via cautious and more updated but literature review. Applications in Dental Research were searched by using the key-words Scanning Electron Microscopy and Dentistry, Dental Biomaterials, Periodontal soft tissues, Enamel, Dentine, Cementum and Alveolar bone in international database (PubMed), in the year of 2014. A sum of 346 articles were found out of which 70 articles were found when searched for the SEM and Dental Research, 160 articles were found when searched for the SEM and Dentistry, 49 articles found with search of SEM and Enamel, 37 articles found when searched for the SEM and dentine, 08 articles found with search of SEM and Cementum, 07 articles found with search of SEM and Alveolar bone, and 15 articles found with search of SEM and Periodontal soft tissues likewise. This data was tabled and the articles were classified according to the SEM application in Dental Biomaterials and Oral Biosciences. A critical review was also carried out, with new guidelines regarding the use of SEM in modern dental research.

Biography
Dr. Jamaluddin Syed is Coordinator/Researcher in Advanced Technology Dental Research Center, Coordinator in Research Ethics Committee (KAUFD), working as Assistant Professor, Department of Oral Basic and Clinical Sciences, Faculty of Dentistry, King Abdul Aziz University, KSA. Member of International Association of Dental Research (IADR), American Association of Periodontology (AAP), British Society of Periodontology (BSP), European Federation of Periodontology (EFP)

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