

Poster journal

Regenerative Endodontics - Road to a realistic future

Anila Krishna Saxena¹, Anil K Tomer², Artika Gupta³

^{1,3}Department of Conservative Dentistry and Endodontics, Divya Jyoti college of Dental Sciences and Research, Modinagar, Uttar Pradesh, India

Commentary:

Regenerative endodontics aims to restore vitality of the tooth by replacing pathological pulp with functional pulp tissue. It has been defined as “biologically based procedures designed to physiologically replace damaged tooth structures, including dentin and root structures, as well as cells of the pulp-dentin complex” in the Glossary of Endodontic Terms (2012)¹. Regenerative procedures aim to repair pulp in an organized way and encompass many therapies that are continuously evolving in this field². The triad of stem cells, growth factors and scaffolds form the fundamental basis for regeneration of pulp affected by trauma or infection³. Minimal canal instrumentation, antimicrobials and irrigants are used in conjunction with apically induced bleeding to form a blood clot that acts as a seal within the canal to promote healing⁴. Regeneration of tissues like resorbed root, damaged dentin and pulp like tissue i.e. pulp dentin complex are among the main objectives of regenerative endodontic procedures⁵. Root canal revascularization, pulp implantation, scaffold implantation, injectable scaffold delivery, postnatal stem cell therapy, gene therapy and 3D cell printing are the numerous approaches that come within the scope of regenerative endodontics¹.

References

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Corresponding Author:

Anila Krishna Saxena

Department of Conservative Dentistry and
Endodontics,

Divya Jyoti college of Dental Sciences and
Research,

Modinagar, Uttar Pradesh, India

Email id: dranilasaxena@gmail.com