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Stem Cells from Tooth: A Potential, Ethical, Efficient & Non-Invasive Way to Obtain Stem Cells

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ABSTRACT: Dental stem cells are being studied for a wide range of diseases due to their ability to differentiate into connective, neural, muscle, bone and dental tissues. Stem cells found in teeth hold the potential to treat conditions such as type 1 diabetes, neuronal degenerative disorders like: Alzheimer's, Parkinson's and Huntington's disease, cardiovascular disease, paralysis due to spinal cord injury, liver disease, stroke, heart attack, joint bone repair, periodontitis, dental caries etc. Stem cells are immature, unspecialized cells that are able to grow into specialized cell types by the process of differentiation because, they are highly potent have multidrug potential, immortal, and carry a normal karotype. Dental stem cells are present in various dental tissues, including both deciduous and permanent teeth. There are five major types of dental stem cells which are capable of differentiating into a variety of cell types including neural cells, adipocytes and odontoblast and cementum forming cells. With the discovery of dental stem cells, there is no need to rely only upon the umbilical cord for harvesting Stem cells as here's a possibility to isolate equally potent stem cells from tooth of an individual. A positive aspect is that stem cells from teeth can be easily extracted and also satisfy the ethical concerns. The present review describes this potential technique and its implication as an alternative to umbilical chord stem cell isolation and therapy.

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