

Letters to Editor

Extracted wisdom teeth: Preserve or discard???

Madam,

Wisdom teeth are a valuable asset to the mouth when they are healthy and properly positioned. Often, however, problems develop that require their removal. When the jaw is not large enough to accommodate wisdom teeth, they can become impacted. Wisdom teeth may grow sideways, emerge only part way through the gum or remain trapped beneath the gum and bone. Approximately, 65% of the population has at least one impacted third molar until 20 years of age.^[1] The most common reason people choose to remove their wisdom teeth is that their mouth is too small for these teeth to normally erupt behind the second molar into a good position. Studies have proved that adult third molar can be a rich source of dental pulp stem cells.^[2] The discovery of stem cells in dental pulp of primary and permanent teeth have created an opportunity for the dental profession to devise alternate treatment methods for repairing decayed or traumatized teeth.^[3] These post-natal dental stem cells have the potential for self-renewal and multi-lineage differentiation. The advantages of utilizing dental stem cells are: Their easy access, low morbidity of the anatomic site from where they are obtained, high efficiency of isolation from pulp tissue, differentiation ability, and demonstrated interactivity with biomaterials for tissue engineering.^[4] Researchers have found the pulp of teeth to contain chondrocytes, osteoblasts, adipocytes, and mesenchymal stem cells. All of these cell types hold enormous potential for the therapeutic treatment of: Neuronal degenerative disorders such as Alzheimer's, Parkinson's, and Amyotrophic Lateral Sclerosis or Lou Gehrig's Disease; chronic heart conditions such as congestive heart failure and chronic ischemic heart disease; periodontal disease and to grow replacement teeth and bone.^[5] Multi-potent tooth germ progenitor cells from discarded third molar are one of the

candidates for cell-based therapy to treat liver diseases and offer unprecedented opportunities for developing therapies in treating tissue repair and regeneration. Wisdom tooth extraction is one of the common procedures. If done in a sterilized setting, we can freeze the cells derived from these teeth for years until it is required. Finally, the good for nothing painful wisdom tooth may have some worth stem cells.

Navpreet Kaur¹, Ajay Nagpal²

¹Departments of Preventive and Community Dentistry,
²Conservative Dentistry and Endodontics,
K.D. Dental College and Hospital, Mathura,
Uttar Pradesh, India

Address for correspondence:

Dr. Navpreet Kaur,
Department of Preventive and Community Dentistry,
K.D. Dental College and Hospital, NH#2,
Delhi-Mathura Road, P.O. Chattikara,
Mathura - 281 006, Uttar Pradesh, India.
E-mail: drnavpreetmids@gmail.com

REFERENCES

1. Sands T, Pynn BR, Nenniger S. Third molar surgery: Current concepts and controversies, part 2. *Oral Health* 1993;83:21-2.
2. Oda Y, Yoshimura Y, Ohnishi H, Tadokoro M, Katsube Y, Sasao M, *et al.* Induction of pluripotent stem cells from human third molar mesenchymal stromal cells. *J Biol Chem* 2010;285:29270-8.
3. Gronthos S, Mankani M, Brahimi J, Robey PG, Shi S. Postnatal human dental pulp stem cells (DPSCs) *in vitro* and *in vivo*. *Proc Natl Acad Sci U S A* 2000;97:13625-30.
4. Graziano A, d'Aquino R, Laino G, Papaccio G. Dental pulp stem cells: A promising tool for bone regeneration. *Stem Cell Rev* 2008;4:21-6.
5. Seo BM, Sonoyama W, Yamaza T, Coppe C, Kikui T, Akiyama K, *et al.* SHED repair critical-size calvarial defects in mice. *Oral Dis* 2008;14:428-34.

Access this article online



Website: <http://drj.mui.ac.ir>