Mech Aero-2013

OMICS Group Conferences
Accelerating Scientific Discovery

International Conference and Exhibition on
Mechanical & Aerospace Engineering

September 30- October 2, 2013 San Antonio, Texas, USA

Space dentistry: Needs to explore

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Abstract

Dental emergencies and dental health needs are recommended to be studied for short and long space mission especially Mars mission [White et al., 2003]. Recent missions to Mars will comprise for approx. two years of microgravity and radiations conditions on human body, which could have serious effects on human physiology including oral cavity physiology [White et al., 2003 Rai et al., 2011]. Our previous studies reported that simulated microgravity has effects on oral cavity such as periodontitis, dental caries, osteoporosis leading to bone loss and fractures of jaws bone, facial pain and numbness of teeth and oral cavity tissues, stone of salivary duct and oral cancer, which are more prevalent in space environments as compared to normal earth environments [Rai et al., 2011-2013]. It is imperative that we send a "space dentist in space" to achieve first response protocol through dental and oral health related experimentation. It is very important for space travelers to have a dental emergency treatment and management kits accessible on board. This protocol is essential not only for long space missions but also in third world countries and remote area. So, this issue should be taken into account for safe space missions.

Biography

Kaur is chief of JBR society , India. Dr. Kaur is the most recent recipient of the prestigious Henry Thorsten award from the ADA. Trained in dental surgery, Dr. Kaur was the Health and Safety Officer on the Mars Desert Research Station USA for Crew Number 114. MDRS is a facility where simulated space studies are carried out mimicking authentic space projects on Earth. She has over twenty publications in the area of salivary research. She is also an expert reviewer for the *Journal of American Dental Education*, *Oral Disease*, and the *Irish Medical Journal*. Dr. Kaur presently holds a research position at the Catholic University of Leuven in Belgium. She is working on a project entitled : space dentistry and space flight.