Implanted eye tooth helps blind patient see again
First osteo-odonto-keratoprosthesis procedure performed in the US

MIAMI, FL, USA: A 60-year-old patient from the US has recovered her sight after surgeons in Miami implanted one of her teeth in her eye. This surgical procedure was a first in the US and undertaken at the Bascom Palmer Eye Institute at the University of Miami’s Miller School of Medicine, where the patient’s eye tooth was implanted as a base to hold a prosthetic lens. The patient was blinded in 2000 by the effects of Stevens-Johnson syndrome, a severe adverse reaction to common drugs, causing burning, blistering and sloughing of skin and involved tissue. It also frequently causes blindness, and results in 100,000 deaths per year worldwide.

Dr Victor L. Perez, Associate Professor of Ophthalmology at the Bascom Palmer Eye Institute, and his interdisciplinary team performed a modified osteo-odonto-keratoprosthesis (MOOKP) procedure, a complex surgery that had until now been available only in a limited number of eye centres in Europe and Asia. Developed by the Italian ophthalmologist Prof. Benedetto Strampelli in the 1960s, MOOKP has proven effective as a solution to end-stage corneal disease, in which severe corneal scarring blocks vision and corneal transplants are no longer an option but the eye’s internal structures and optic nerve remain healthy.

“For certain patients whose bodies reject a transplanted or artificial cornea, this procedure ‘of last resort’ implants the patient’s tooth in the eye to anchor a prosthetic lens and restore vision,” explained Dr Perez.

In MOOKP, an extracted tooth and surrounding bone are shaved and sculpted, and a hole is drilled to insert an optical cylinder lens. In order to bond the tooth and lens as a bio-integrated unit, they are implanted under the patient’s skin in the cheek or shoulder. The eye specialist then prepares the surface of the eye for implantation of the prosthesis, by removing scar tissue surrounding the damaged cornea.

About one month later, mucous material is collected from the inside of the patient’s cheek and used to cover and rehabilitate the surface of the damaged eye. In the final phase, the prosthesis is removed from the cheek or shoulder and implanted in the eye. The prosthesis is aligned with the centre of the eye, and a hole is made in the mucosa for the prosthetic lens, which protrudes slightly from the eye and enables light to enter the eye, allowing the patient to see again.

“The procedure will help countless of people in the US to regain sight,” said Dr Eduardo C. Alfonso, chairperson of the Bascom Palmer Eye Institute. “Thanks to the work of Dr Perez’s team, patients in the US now have access to this complex surgical technique.”

To the Editor
Re: "FDA says mercury dental fillings not harmful"
(Dental Tribune Asia Pacific No. 7+8, Vol. 7, page 5)

Pennsylvania is the second most polluted state in the US, especially in the eastern part of the state. This is due to the large amount of coal burned by power plants, factories, private homes, and the Centrales coal-runs fires. The residents are exposed to more mercury from breathing the air and drinking the water than from the silver fillings. And if all that mercury is leaching out of the fillings, why are they not falling apart? I have some 40-year-old fillings still intact. I’ve been around mercury for at least 42 years, counting dental school, the Naval Dental Corps and private practice, and do not have any of the symptoms ‘the chicken littles of the mercury sky is falling’ talk about. I would guess that dentists and dental assistants would have the greatest exposure, why aren’t we dropping like flies?

Dale C. Resue, USA, 13 Sep., 2009
Head and neck cancer may aggravate periodontitis

Claudia Salwiczek
HONG KONG/LEIPZIG, Germany: New findings from the US have shown that chronic periodontitis might represent a clinical high-risk profile for head and neck squamous cell carcinoma. The strength of the association was greatest in the oral cavity, followed by the oropharynx and larynx, suggesting the need for increased efforts to prevent and treat periodontitis as a possible means of reducing the risk of this form of cancer.

Head and neck cancer figures have increased, especially in regions like Southern Asia. Each year there are approximately 400,000 cases of cancer of the oral cavity and oropharynx, with another 160,000 cases of cancer of the larynx worldwide, resulting in approximately 500,000 deaths. The main risk factors for these cancers are tobacco and alcohol use.

The researchers from the University of Buffalo assessed the role of chronic periodontitis on head and neck squamous cell carcinoma, as well as the individual roles on the oral cavity and oropharyngeal and laryngeal sub-sites. They used radiographic measurement of bone loss to measure periodontitis among 463 patients, of whom 207 were controls. When they stratified the relationship by tobacco use, they found that the association persisted in those patients who had never used tobacco.

“Confirmatory studies with more comprehensive assessment of smoking, such as duration, quantity and patterns of use, as well as smokeless tobacco history are needed,” said Dr Mine Tezal, Assistant Professor in the Department of Oral Diagnostic Sciences in the School of Dental Medicine at the University at Buffalo. “Our study also suggests that chronic periodontitis may be associated with poorly differentiated tumour status in the oral cavity. Continuous elucidation of cellular proliferation by chronic inflammation may be responsible for this histological type.”

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World News

DENTAL TRIBUNE Asia Pacific Edition

UK releases guideline on child neglect

Claudia Salwiczek

COVENTRY, UK/HONG KONG/ LEIPZIG, Germany: A new policy urging dentists to check for tell-tale signs of neglect when treating children with severe oral disease has recently been published for the British Society of Paediatric Dentistry. The document, thought to be the first of its kind in Europe, is the result of a collaboration between the University of Warwick, University of Sheffield, and Leeds Dental Institute. It details the numerous factors that need to be taken into account when assessing a child with suspected dental neglect and gives guidance on how the dental team should respond.

According to Dr Peter Sidebotham, co-author of the document, there is evidence which indicates that abused children have higher levels of untreated dental disease than their non-abused peers. Many dentists have taken part in child protection training, but still find it difficult to put into practice what they have learned when they suspect abuse, he said.

“I am impressed by how much dentists already do to educate and support parents. But when concerned that a child is suffering, perhaps as a result of missed appointments, I would always encourage them to seek advice from other health professionals experience in child protection and, if necessary, to make a child protection referral,” Dr Sidebotham added.

Dental neglect, which is defined as the persistent failure to meet a child’s basic oral health needs, can have a significant impact on the health of a child with consequences including severe pain, loss of sleep, and even reductions in body weight and growth. Additionally, dental neglect can be indicative of a wider welfare picture of child neglect and abuse and the policy states that dentists should refer cases to child protection services if they have concerns.
European endodontists reorganise in Scotland

Delegates were also asked to select a site for the 2013 ESE congress, which has received bids from member societies in France, Portugal and Spain. Furthermore, the Executive Board has proposed the co-funding of a symposium in July 2010 with the Pulp Biology and Regeneration Group of the International Association for Dental Research, which will address the topics of inflammation and regeneration.

New organisation makes dentists ‘cone-beam-ready’

The International Cone-Beam Institute (ICBI) is a new independent organisation of cone-beam computed tomography (CBCT) experts that aims to provide the highest level of education, training, and product information for 3-D technology to dental professionals worldwide.

As a vendor-neutral organisation, it is an industry first for a company to provide information to dental professionals, future imaging centres and vendors at an international level. General information, such as the various cone-beam scanners available in the US and international markets, as well as general information on available third-party software, will be available to everyone without charge. ICBI also provides in-depth and customised vendor analysis to help practitioners understand this comprehensive technology.

Members of ICBI’s website (www.exploreconebeam.com) are able to review case studies and gain advice from CBCT experts. They also have access to special consulting services, online training and training seminars. In addition, ICBI offers a connection to oral maxillofacial radiologists who can provide reading services to aid in the interpretation of CBCT scans. The organisation also has a blog where users can exchange case studies, ideas and techniques regarding capturing the highest quality images.

The International Congress of Oral Implantologists, the world’s largest implant education organisation, fully endorses the ICBI. Partners of ICBI include Dental Tribune International and the Dental Tribune Study Club.