Aussi study claims dentists are prone to visual illusion

**LISMORE, Australia:** Objects in a mirror appear to be farther away than they are in a common illusion encoun- tered by car drivers around the world every day. Misleading visual perception of an object could also be the reason that dentists sometimes drill larger cavities than necessary to fill a tooth or prepare a root canal, a team of psychologists and dental researchers from Australia and New Zealand has suggested.

In clinical field tests involving eight practising endodontic specialists from New Zealand and conducted in 2002 and 2006, the researchers found that dental professionals tend to fall trap to the Delboeuf illusion, which makes enclosed areas appear smaller than they actually are when seen in a larger context. In their case, a cavity drilled into a tooth appeared to be smaller when the surrounding tissue was in range of the parameters of the illusion, leading to more healthy tissue being removed at the ex- pense of patients.

The researchers said in the report that it remains unknown whether dentists are aware of this when drilling but recom- mended that their findings be incor- porated into the early stages of clinical training to decrease the risk of cracking or perforat- ing the root end due to having re- moved too much healthy tissue. It should also be extended to other fields of health-care treat- ment that could be affected by visual illusions, they added.

“When operating, health- care providers try to save as much healthy tissue as possible. It is important to know that their eyes can deceive them into re- moving more healthy tissue than necessary,” lead author of the study and psychology expert from the University of Southern Cross in Australia Prof. Robert O’Shea commented.

Named after its creator, Joseph René Leopold Delboeuf, a Belgian scientist, the illusion was first doc- umented in 1865. It has been re- ported to be used by restaurants to trick customers regarding the size of their dishes by using smaller plates, among other things.

For the latest study, more than 20 extracted and root-filled teeth were treated by each participant, who had not been informed about the parameters of the il- lusion. The participants were asked to remove as little tissue as possible when preparing the teeth and to use their usual hand instruments.
DT Asia Pacific

CANBERRA, Australia: The Australian Ministry of Health has refused claims by the Australian Dental Association to delay the introduction of the Child Dental Benefits Scheme in January 2014. They agreed, however, to conduct a timely review of the programme, which is intended to subsidise dental care for over three million children.

In the organisation’s letter, ADA president Dr Karin Alexander said that dentists feel largely unprepared for the introduction of the programme and firstly need to be fully briefed about its details. She said that there is still a grey area around the administrative requirements of the scheme which, she said could force dentists into making mistakes once it is introduced next month.

According to ministry officials, information leaflets are currently in preparation and will be sent to dentists this month in order to provide further details of the programme. Furthermore, an e-learning module and telephone hotline for dental provider inquiries will be available on the ministry’s website soon. They said that there will also be a national campaign to inform parents of the eligibility requirements.

A part of the former government’s National Dental Health Reform, the scheme entitles children between ages 2 and 17, who are on income support or whose parents receive certain tax benefits, to treatment costs of A$1,000 for basic dental procedures like examinations or extractions over a period of two calendar years. It will replace the current Medicare Teen Dental Plan which was launched under the Labour government back in 2008. An estimated A$3 billion will be provided this way to children in need for dental care over the next two years.

According to recently published figures of the Australian Bureau of Statistics in Canberra, access to dental care services remains limited in the country, particularly for children from low income households.

---

Advanced digital diagnostics

SINGAPORE: With the introduction of its diagnostic digital sensor Gendex GXDP-700, dental equipment manufacturer KaVo offers dentists a more economic entry into the world of 2-D and 3-D diagnostics.

According to the dental equipment manufacturer, various diagnostic problems can be competently solved through the large selection of 12 panoramic and five remote X-ray modes. With the optional volume extension to 60 x 80 mm, it is also possible to cover the whole mandibular arch with just one image. Both radiation dose and the time taken to effect diagnosis are reduced owing to indication-related volume selection, the company said. KaVo also highlighted the benefit of the Intelligent SmartLogic technology, whereby the most frequently used mode and preselect are automatically saved for use with the next image.

The Gendex GXDP-700 comes with a 10 inch wide touch panel and a system for fast, easy and effective patient-positioning. The software solutions InVivo 3D and VixWin 2D allow not only integration into almost any practice management software, but can also be used for diagnostic purposes, processing and further use of images.