Dentists’ irritant named Allergen of the Year

SAN DIEGO, Calif., USA: A chemical compound associated with allergies in dental professionals has been announced Allergen of the Year by the American Contact Dermatitis Society in San Diego. The organisation chose acrylate, a polymer derived from acrylic acid, for the dubious title owing to its widespread occurrence in human environments and frequent reports on its irritant effects during manufacturing processes like denture making.

The allergic potential of acrylates was first reported in the early 1950s. In addition to its use in dental primers, bonding agents and cements, different forms of the compound can be found in paint, orthopedic bone cement and artificial nails, among other products.

Dr Donald V. Belsito, former American Contact Dermatitis Society president and professor of Clinical Dermatology at Columbia University in New York, told reporters in San Diego that public exposure to acrylates is very low compared with exposure among orthopaedic surgeons, dentists and manicurists. He said that those working in these professions should be aware of the hazards it poses and seek to limit routine exposure to this compound.

By testing dentists, dental nurses and technicians in 2007, researchers from the Finnish Institute of Occupational Health in Helsinki found that many had developed contact allergies that could be traced back to two main forms of acrylate: 2-hydroxyethyl methacrylate used in dental adhesives and methyl methacrylate, which is found in high concentration in dental labs.

Similar results were reported by a clinical team at the Sahlgrenska University Hospital and Academy in Gothenburg in Sweden a few years ago.

Since the polymer can penetrate latex, vinyl gloves and even face masks through acrylate monomer vapour, dermatologists recommend that dentists use vitrile or nitrile gloves as initial protection. Inside dental labs, local exhaust ventilation systems have demonstrated the potential to decrease the level of acrylate vapour in the working space of dental technicians significantly.

Dental mid-life crisis found

Middle-aged women are most likely to suffer from fear of the dentist. Clinical observation of patients taking part in a multi-year clinical trial conducted at the Dental Phobia Clinic in Westmead, Sydney, has indicated that the level of dental anxiety is highest among women in their forties.

According to the researchers, this demographic was also found to have perceived a traumatic dental experience, including orofacial trauma, in the past and to be more prone to stress or mental disorders like depression. The results are intended to help investigate the relationship between dental anxiety and the perception of and coping with pain, as well as to develop strategies for managing the condition successfully.

Surveys have shown that compared with the general population, phobic patients wait more than five times longer to make a dental appointment.

Indonesia targets dental workers

New regulations implemented by the Ministry of Health in Indonesia have sparked nationwide protest by hundreds of dental workers. Effective from April, the law prohibits dental technicians and people working as “denture makers” from performing dental treatment on patients.

While Indonesia has tens of thousands of trained dentists and dental technicians, there are also many denture makers (known as tuang giga) who offer dental procedures, including extractions and orthodontic treatment, without the proper training and for lower prices. The regulations aim to prevent these “street dentists” from operating in order to protect patients from poor treatment practices.

Dental technician associations have criticised the regulations, which they fear could put many dental workers out of business and reduce the opportunities for middle- and lower-income patients to receive dental treatment at all. The costs for dental procedures offered by a tuang giga are usually four to five times lower than treatment by a regular dentist.