Dental technicians could be at higher risk of mesothelioma

By DTI

MILAN, Italy: Dental technicians could be at an increased risk of developing asbestos-related cancer, Italian researchers have suggested. According to their study results, past exposure to materials formerly used in the manufacture of dental prostheses could trigger the much-later development of malignant mesothelioma, a type of cancer that most often affects the pulmonary pleurae and less commonly the peritoneum.

Asbestos, a proven cause of cancer, was a widely used material in construction products, especially in the 1960s and 1970s. In dentistry, it was used as a binder in periodontal dressings and as lining material for casting rings and crucibles.

The Italian researchers, experts in environmental science and occupational health, conducted an analysis of more than 5,000 pleural mesothelioma patients between 2000 and 2014. They found four subjects whose only exposure to asbestos had been in their work as dental technicians.

"Three men had been working as dental laboratory technicians, with asbestos exposure for 10, 34, and 4 years, and one woman had been helping her husband for 30 years in manufacturing dental prostheses," wrote the study authors, among them Dr Carolina Menzi, from the Department of Preventive Medicine at the Fondazione IRCCS Ca’ Granda of the Ospedale Maggiore Policlinico, a scientific institute for research, hospitalisation and health care at the Milan hospital. The men described the use of asbestos as a lining material for casting rings, while the woman was not able to confirm the use.

Dental technicians who worked with asbestos in the past may have inhaled microscopic fibres of the carcinogenic material, and this could trigger the development of mesothelioma in later years.

The study, titled “Pleural malignant mesothelioma in dental laboratory technicians: A case series”, was published ahead of print on 13 April 2017 in the American Journal of Industrial Medicine.