Study links bisphosphonates to osteonecrosis of the jaw

Cumulative incidence of ONJ significantly higher among patients who had received BP

KYOTO, Japan: A new study has shown that bisphosphonates (BP), a class of drugs commonly used to treat bone diseases such as osteoporosis, is associated with an increased risk of developing severe bone disease of the maxilla and the mandible. The researchers found that especially elderly patients who had received intravenous BP had an increased risk of osteonecrosis of the jaw (ONJ).

The study was conducted among 5,216 male and female patients aged 20 or older mostly diagnosed with osteoporosis and various types of cancer. They had undergone tooth extraction at the Kyoto University Hospital’s Department of Oral and Maxillofacial Surgery between April 2006 and June 2009. About 4 per cent (126) had received either oral BP (99) or intravenous BP (27), while 96 per cent (5,090) had not received such treatment.

Researchers from the institute found that at 42 months following tooth extraction the cumulative incidence of ONJ was significantly higher among patients who had received BP. According to the study, five patients to whom BP had been administered developed ONJ, compared with only one patient in the control group.

They observed a significant difference with regard to age and prevalence of cancer or osteoporosis between the two groups. The risk ratio for ONJ was particularly elevated in patients aged over 65 who had received intravenous BP, according to the researchers.

In addition, they found that at least a biopsy bone loss could be a risk factor for BP-induced ONJ after tooth extraction, thus, they suggested that inflammation of the periodontal tissue might predispose people to the condition, and preventive treatment of oral bacteria might be essential for a favourable outcome of tooth extraction.

BP is usually administered to prevent further bone loss, reduce pain and increase bone mineral density in patients with bone disorders. A study published in the September 2005 issue of the International Journal of Oral and Maxillofacial Surgery was the first to suggest osteonecrosis as a side-effect of bisphosphonate treatment. In the current literature, the estimated incidence of BP-induced ONJ ranges from 8.5 per cent to 40 per cent.
Patients mass tested after blunder in Hong Kong’s largest dental clinic

HONG KONG: The Centre for Health Protection has been informed by the University of Hong Kong Health Service’s Dental Unit that it treated hundreds of patients with improperly sterilised instrument. Over 250 people, including staff and students, are reported to have received dental treatment under these conditions between 30 October and 2 November.

Meanwhile, the university has issued an apology and called in affected patients for blood tests to rule out infection with bacteria or viruses like Hepatitis B and C and HIV. In addition, follow-up tests will be conducted six months after the incident, it said.

The kind of dental instruments used for the procedures and the reasons for the negligence were not disclosed; however, university officials said that the possibility of infection is likely to be low since the instruments had passed through some steps of the sterilisation protocol.

They have set up a task force to look into the incident and review the unit’s procedures on infection control.

The serious blunder came to light last after a nurse enrolled in the unit found that instruments were not marked as having completed the full sterilisation protocol. Generally, instruments in the unit are rinsed with water, sterilised in a thermal disinfectant and finally autoclaved at 120°C. This last step in the cycle, which destroys all remaining micro-organisms, was not performed, according to reports.

More than 38,000 treatments are performed annually at the clinic, a university spokesperson told Dental Tribune Asia Pacific.

Triumvirate to lead medical tourism

NOIDA, India & ROSWELL, Ga., USA: The increase in medical tourism in Asia will apparently only benefit certain countries in the region. According to a report released by India-US market research provider Renub Research, over two thirds of the market for foreign medical and dental services will be controlled by India, Thailand and Singapore in the near future.

Overall, Renub estimates that the number of arrivals for medical and dental tourists will exceed ten million by 2015, which would be a 50 per cent increase from the present volume. Thailand, which currently sees the largest number of foreign medical tourists per year, is predicted to double its market volume within the next three years. The country currently holds the largest market share with 40 per cent.

It will be followed by Singapore, with an estimated one million arrivals per year and India with an expected half a million arrivals. Together, all three markets will hold a total share of 80 per cent while countries like South Korea, the Philippines, Malaysia and Taiwan will compete for the remaining 20 per cent. Taiwan in particular is expected to be frequented by members of the Chinese middle class who can increasingly afford high-cost medical and dental treatment. Other countries were not included in the report.

With rates of up to 50 per cent, medical tourism has been one of the fastest growing business sectors in the region owing primarily to the rising affluence of the middle class and a boom in the private health care sector. Recognising the potential, several countries have recently started initiatives to improve medical facilities and the workforce, as well as to attract more patients from abroad.

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