Analysis of Needlestick Injuries in Fukuoka Dental College Medical and Dental Hospital

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Abstract: Dentists are often exposed to patients’ blood or body fluid during dental treatment, and they are also at risk of needlestick injuries due to the use of needles and sharp instruments. To prevent needlestick injuries, which may cause blood-borne infection, we need to analyze the accidents at hospitals and to evaluate the effectiveness of the safety guidelines. The Infection Control Team (ICT) of Fukuoka Dental College Medical and Dental Hospital analyzed the needlestick injuries in this hospital, discussed prevention methods, and evaluated their effectiveness.

The analysis was performed based on the infectious accident reports in our hospital from 2002 to 2007. A total of 80 accidents were reported in these 6 years, and we first analyzed the tendency of needlestick injuries. The biggest numbers of accidents were reported in November in a year, and the accidents often occurred on a Tuesday. Many accidents occurred from 11 to 12 in the morning. The needlestick injuries were mainly associated with injection needles, suture needles, scalar chips, and preparation bars. The accidents were mostly reported by doctors and dentists, but considerable numbers of accidents were reported by the junior college and dental school students who were undergoing on-the-job-training. The accidents often occurred when the staff were clearing and cleaning the instruments, and may have been partly because the students were also doing these jobs.

To prevent needlestick injuries, we reviewed the infection control manual and are giving lectures on medical safety. From 2005, the handling of injection needles was restricted to faculty members, and the students were isolated from injection needles. As a result of these efforts, needlestick injuries decreased from 2006 to 2007. On the other hand, there is a possibility that not all accidents were reported, so we need to advise the medical staff to report needlestick injuries as soon as they occur. Since human error is inevitable, safety devices may be necessary in dental treatment.

Key words: Needlestick injuries, Infection control team (ICT), Medical safety