

The usage of the rubber dam in restorative dentistry and endodontics - abstract

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Good isolation of the working field is a condition for high quality, safe, efficient and successful work in restorative dentistry and endodontics. The use of rubber dam is considered as a standard of care in the isolation of working field. Rubber dam is a rubber membrane with holes around the crowns of isolated teeth. It separates the working field from the other parts of the oral cavity. Rubber dam protects the patients from injuries and aspiration or ingestion of small foreign bodies. It enables suction of all cooling water, preparation debris and all agents used during the treatment. It steadily provides clear access and overview of the operation field. It protects the working field from saliva contamination. It plays an important role in infection control.

In spite of repetitive recommendations of dentistry authorities the use of rubber dam is not widespread, even though the most frequent arguments of dental practitioners against rubber dam have been disproved in many studies.

The aims of this work were (i) to find out the frequency and circumstances of rubber dam use among dentists in the Czech Republic and to compare the data with other countries, (ii) to reveal the patients' attitudes to rubber dam and the influence of various factors on them, (iii) to find out the mean time needed for rubber dam placement and (iv) to compare the properties of newly developed isolation systems with the conventional rubber dam. Two questionnaire surveys and an experimental study were conducted for achieving these goals.

Almost three quarters of the dentists in our study have never used rubber dam, what ranks the Czech Republic under the world average. The frequency of the use of rubber dam was influenced by the dentists' gender, length of the practice, percentage of the direct payments, previous rubber dam experience and undergraduate rubber dam training. Rubber dam was mostly used for root canal treatment and for composite fillings.

The patients' attitude to rubber dam was very positive. The most of them felt more comfortable during the treatment with rubber dam and the most of them preferred its usage during the next treatment. The mean time of rubber dam placement was 1.5 minute.

The hypothesis that newly developed isolation systems are faster to place than the conventional rubber dam without decreasing of the isolation quality was accepted for OptiDam™, but rejected for OptraDam® Plus.

Key words: Working field isolation, restorative dentistry, endodontics, rubber dam, questionnaire survey, patients' attitude, quality of care.