

Patients' Attitude to Rubber Dam: A Short-term Study

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ABSTRACT

Introduction: Rubber dam is essential for effective isolation of the root canal and operating field from salivary bacteria as well as protection of the airway. Rubber dam is easy to apply once the basic components and principles are understood. The most common reasons for not using rubber dam for a procedure were patients inconvenience and belief that it is unnecessary. The purpose of the present study was to evaluate the patients attitude to rubber dam after educating them about the use and benefits of rubber dam.

Materials and methods: A questionnaire containing 11 questions was circulated to 20 male and 20 female patients undergoing root canal treatment after explaining about the rubber dam. Information sought included attitude toward the current and anticipated use of rubber dam for a variety of endodontic treatments.

Results: A total of 24 patients out of 40 said that they had a pleasant experience and preferred its use next time. Around 30 patients felt that the use of rubber dam benefits both patient and the doctor.

Conclusion: There was not much of a difference in patient's attitude to rubber dam and mean application time. Those who had a good current experience preferred rubber dam use next time also.

Keywords: Rubber dam, Isolation, Latex allergy, Patient's attitude.

INTRODUCTION

Rubber dam was introduced by SC Barnum in 1864.¹ It benefits both the operator and the patient. Some of its advantages are isolation of working field, prevents colonization of the canal system with oral flora, provides a pleasant operating environment and eliminates the risk of litigation if foreign body is swallowed. In circumstances when a root canal instrument is inhaled by the patient and a rubber dam has not been used, a medicolegal allegation of negligence is impossible to defend (Reid et al, 1991).² Its use is mandatory in endodontics³ and the qualifying dental school has a significant impact on rubber dam use.⁴

AIM

To record patients experience of rubber dam use in an objective manner.

ADVANTAGES

Rubber dam provides a dry, clean operating field, better access and visibility, improves the properties of dental materials, improves operator's efficiency, maintains an aseptic field during treatments, such as cavity preparation or root canal preparation

or filling (Cochran et al, 1989); reduces the potential risk of transferring infective agents between dentist and patient (Forrest and Perez 1989); prevents ingestion or aspiration of instruments, materials, solvents or irrigants during dental treatment⁵ (Cohen and Schwartz 1987); protects gingiva and other oral soft tissues from contact with deleterious materials, particularly liquids such as sodium hypochlorite or phosphoric acids⁶ (Carrotte 2000, Lynch and McConnell 2003); retracts soft tissues, including gingivae during certain operative procedures (Reid et al 1991). In addition to these advantages, rubber dam improves patient comfort during dental treatment (Gergely 1989, Stewardson and McHugh 2002).¹⁻³

DISADVANTAGES

The possible reasons for the under-use of rubber dam are not entirely clear. An inexperienced doctor may take a long time for placing the rubber dam. Some patients may object its placement, cannot be used in partially erupted teeth, last molars, malposed teeth, asthmatic patients, in those who are known to be allergic to latex products.¹

MATERIALS AND METHODS

A total of 20 male and 20 female patients requiring root canal treatment for their mandibular molar teeth were randomly

selected for the study. They were explained of rubber dam use before starting the treatment. Questionnaire containing 11 questions was designed. The questionnaire is as follows:

Feedback Form—To be Filled by the Patient

1. Name of the patient
2. Age
3. Sex
4. Have you had rubber dam used for the dental treatment before?
5. If yes, who has used it?
 - a. Same dentist as today
 - b. Different dentist
 - c. Dental student
6. How was today's experience of placing rubber dam?
 - a. Better
 - b. Worse
 - c. About the same
7. Did the dentist explain why the rubber dam was being used? Yes/no
8. Was the explanation clear to you? Yes/no
9. Did you feel that placing rubber dam was for
 - a. Your benefit
 - b. Dentist's benefit
 - c. Both
10. How was the experience of wearing rubber dam?
 - a. Pleasant
 - b. Comfortable
 - c. Uncomfortable
 - d. Painful
11. Would you prefer rubber dam to be used next time?
 - a. Yes
 - b. No preference
 - c. No

Please add any comments you have for/against your experience of rubber dam.

For Doctors Use

- Procedure/treatment done
- Time taken to apply rubber dam
- Duration of rubber dam use
- Is the patient allergic to rubber?

Patients were asked to fill these forms at the end of their appointment. Information concerning the procedure, application time, duration of the treatment was entered by the treating Doctor. Likewise, 40 forms were collected and analyzed.

RESULTS

Total no. of patients, n = 40 (Tables 1 to 3).

Rubber dam along with the clamp was applied simultaneously.

Mean time taken to apply rubber dam was 2 minutes with a range of 2 to 5 minutes.

Mean duration of rubber dam use was 40 minutes with a range of 30 minutes to 1 hour.

DISCUSSION

Female patients showed positive attitude and preferred the use of rubber dam next time also. Method of application is simple. Those who had a good current experience preferred rubber dam

Table 1: Experience of patients to rubber dam use

| Number of patients | Their experience |
|--------------------|------------------|
| 24 | Comfortable |
| 7 | Uncomfortable |
| 5 | Painful |
| 4 | Pleasant |

Table 2: Patient's preference to rubber dam use next time

| Number of patients | Their preference |
|--------------------|------------------|
| 28 | Yes |
| 6 | No |
| 6 | No |

Table 3: Number of respondents and their felt benefit

| Number of respondents | Their feeling |
|-----------------------|----------------------------------|
| 30 | For doctors and patients benefit |
| 6 | For doctors benefit |
| 4 | For patients benefit |

use next time also. But there is not much of a difference in patient's attitude to rubber dam and mean application time.⁷

On their feedback about their experience, few patients replied that there is no danger of swallowing instruments,⁵ no need to spit during the treatment procedure, there is absence of debris in their mouth and protects the soft tissue.

Many of them who have been previously explained of the advantages of using rubber dam showed a positive attitude and preferred its use in the next appointment.

Longer duration of rubber dam application resulted in negative opinion.

CONCLUSION

Patients showed positive attitude towards rubber dam application following proper explanation of the procedure, proper application technique and short treatment time.

Patients are not averse to rubber dam use and operators experience improves patients' compliance.

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