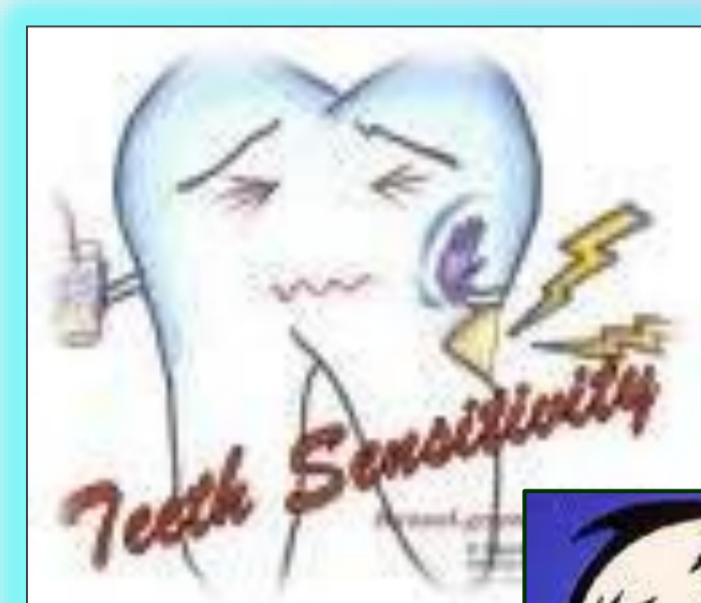


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## ND:YAG LASER IN THE THERAPY OF HYPERSENSITIVITY TEETH CLINICAL EVALUATION

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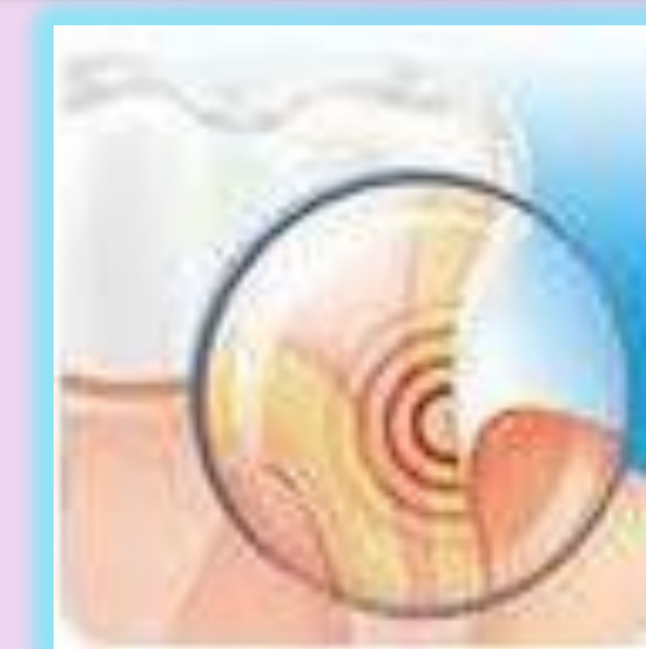
### Introduction

Dentinal hypersensitivity (DH) is a common clinical condition manifested with a sharp, short pain caused by one of the several different external stimuli.

Various different methods and materials in the treatment of dentin hypersensitivity are used. Sealing of open dentinal tubules is one of the methods to reach insensibility. Laser as a source of coherent radiation is used to melt layers of dentine surface.

### Objective

The purpose of this study was to evaluate the clinical effectiveness of Nd: YAG laser in the therapy of hypersensitive teeth.



### Study design

43 patients of both sex at the age 26 - 54 were included in this study for clinical evaluation. Hypersensitivity was detected on 58 teeth. In 48 teeth, the hypersensitivity was located on the tooth's neck. In 10 teeth the hypersensitivity was located on the ocllusal surface.

On all hypersensitive surfaces Nd: YAG laser was used with adequate treatment protocol-three times after five days. We applied laser irradiation on the teeth's gingival third with the fiber – optic hand piece.

- ✳ the distance between the fiber and the target tissue was 1.5 mm.
- ✳ the whole neck surface of the teeth was exposed with slow motions in a period of 60 s
- ✳ the procedure was repeated 3 times per session
- ✳ control of the sensitivity with cold water
- ✳ the patients were instructed to restrain from rinsing and brushing in the first 12 hours
- ✳ the whole procedure was repeated after 5 or 10 days depending on the subjective discomfort
- ✳ specific sensitivity without pathological irritation was detected on the ocllusal plain in 10 teeth
- ✳ we applied laser therapy with slow circular motions 3 times with duration of 60 s
- ✳ the whole procedure was repeated after 5 or 10 days depending on the subjective discomfort

### Results

The results of this clinical evaluation showed that Nd: YAG laser has a significant and quicker clinical effect in reducing the dentine hypersensitivity. Just in three cases were needed to be repeated with the laser irradiation three times.

We have noticed 100% success after the first session with the patients that were treated for hypersensitivity on the ocllusal surface. Most of the patients had came for a second sesion because they had an appointment - not because they needed therapy.

### Conclusion

The Nd: YAG laser is a suitable tool for immediate successful reduction of dentinal hypersensitivity and has better patient satisfaction, shorter treatment-time, and lower rates of pain. Positive clinical effects recommended this new technology in everyday clinical practice.

