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Filling Material Removal and Etching

Zafer Kazak

Parameters:

	Cavity Preparation	Filling Material Removal	Etching
Laser source	Er:YAG (2940 nm)	Er:YAG (2940 nm)	Er:YAG (2940 nm)
Mode	QSP	MSP	MSP
Power / Energy	200 mJ	300 mJ	120 mJ
Frequency	15 Hz	20 Hz	10 Hz
Handpiece	H02	H02	H02
Water / Air Spray Setting	6/4	6/4	NONE

Treatment procedure:

A systemically healthy female patient was referred to our clinic with cavities in the maxillary and mandibular incisors and premolars, and old filling material in tooth no 11. Since the cavities were shallow, it was important to use a precise instrument allowing the cavity preparation without removing healthy tooth tissue. We decided to use the LightWalker AT laser, which also reduces pain and provides comfort during treatments by reducing noise and vibrations when compared with rotary instruments. Without using local anesthesia, all cavities were prepared very precisely using QSP mode. Surfaces were etched with lower laser energy prior to acid etching to provide a stronger bond between the resin and the tooth when compared to acid etching alone. The old filling material was removed with Er:YAG laser with higher energy. The teeth were restored with composite resins.

The patient was very comfortable during the procedure. The treatment was finished without any discomfort. After the treatment the aesthetic expectations of the patient were fulfilled with a comfortable dental chair experience.



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