

عنوان مقاله:

Comparing the Success Rate and Side Effects of Endovenous Laser Ablation and Radiofrequency Ablation to Treat Varicose Veins in the Lower Limbs: A Randomized Clinical Trial Comparing EVLA With RFA for Varicosis

محل انتشار:

مجله لیزر در علوم پزشکی، دوره 11، شماره 0 (سال: 1399)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

**Abstract Introduction:** Varicosis is a condition affecting the superficial venous system of the lower limbs. Endovenous laser ablation (EVLA) is a minimally invasive method that uses different frequencies of laser for treatment. Radiofrequency (RF) has also been effectively used for vein ablation through thermal mechanisms. This study compares the success rate and side effects of EVLA and RF to treat varicose veins in the lower limbs within ۱۲ months. **Methods:** In this two-arm, randomized controlled, single-blind study, ۱۰۹۰ patients with lower limb varicosis proven by Doppler ultrasonography (DUS) were randomly placed into one of the two groups: EVLA and RF ablation. In the EVLA group, we used a ۹۸۰-nm diode laser in a pulsed mode, and in the RF group, a ۷-cm ClosureFast (Covidien, USA) catheter with an RF generator. We assessed pain during the operation and ۸ and ۲۴ hours after the surgery by the numerical rating scale (NRS). The patients were followed up on day ۷, then ۳, ۶, and ۱۲ months postoperatively. The presence or absence of pain and then the severity of pain (according to NRS), the recurrence rate, complications, and the length of the procedure were compared. **Results:** There was no significant difference between the two groups in the patients' characteristics, major adverse events, and pain severity during the procedure and ۸ and ۲۴ hours after the surgery. According to NRS, the mean chronic pain severity in the EVLA group was  $۳.۹۹ \pm ۰.۷۵۴$  versus  $۴.۵۰ \pm ۰.۶۵۷$  in the RF group, and the difference was not significant. The length of operation and the recurrence rate ۱۲ months after the procedure were not significantly different. **Conclusion:** The results of our study further establish the efficacy of EVLT and RF ablation for lower limb varicosis treatment without any significant difference in the clinical outcomes and complications during ۱۲-months follow-up. **Keywords:** Endovenous Laser Ablation, EVLA, Radiofrequency Ablation, RF, varicosis

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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