

Diode laser use in hysteroscopic surgery: current status and future perspectives.

Autori: Vitale SG, Mikuš M, De Angelis MC, Carugno J, Riemma G, Franuši L, Cerovac A, D'alterio MN, Nappi L, Angioni S

Rivista: Minimally invasive therapy & allied technologies : MITAT : official journal of the Society for Minimally Invasive Therapy

DOI: 10.1080/13645706.2023.2247483

PMID: 37584381

ABSTRACT

Recent advances in surgical technology and innovative techniques have revolutionized surgical gynecology, including transcervical hysteroscopic procedures. Surgical lasers (Nd-Yag, Argon, diode, and CO2 lasers) have been promoted to remove a variety of gynecological pathologies. For hysteroscopic surgery, the diode laser represents the most versatile and feasible innovation, with simultaneous cut and coagulate action, providing improved hemostasis compared with CO2 laser. The newest diode laser devices exhibit increased power and a dual wavelength, to work precisely with reduced thermal dispersion and minimal damage to surrounding tissues. Their efficacy and safety have been validated both in the hospitals as well as in the office setting. Updated evidence reports that several hysteroscopic procedures, including endometrial polypectomies, myomectomies and metroplasties can be successfully performed with a diode laser. Therefore, this review aimed to give a deeper understanding of the role of laser energy in gynecology and subsequently in hysteroscopy in order to safely incorporate this technology into clinical practice.