

Carbon dioxide laser surgery in gynecologic oncology

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The carbon dioxide laser is an invaluable tool in the destruction of selective unresectable tumors by tissue vaporization. Radiation resistant malignant or large benign tumors such as retroperitoneal endometriomas can be treated. We have vaporized tumors attached to the bony pelvis, in the vagina and bladder, and in the groin using a Sharplan 791 He laser.

Hemorrhage was a prohibiting problem in the use of the carbon dioxide laser for vascular tumors. The laser beam is absorbed by the blood before its impact can affect microvascular coagulation and is ineffective. For this reason, we employed a combination of cryosurgery and laser surgery for the control of hemostasis successfully.

Ablative surgery was performed with the Sharplan 791 He laser for the resection of selective invasive vulva carcinomas and for benign giant condyloma acuminata of the vulva in pregnant and non-pregnant patients.

Microsurgical tumor vaporization was performed through the optical system of a surgical microscope using the Model 400 carbon dioxide laser of Coherent Radiation in the treatment of vaginal precancerous lesions.

Carbon dioxide laser surgical technique is discussed in detail and demonstrated in pertinent illustrations. Laser hazards and safety precautions are discussed as they apply for tumor surgery.

CO₂激光外科手术用于妇科肿瘤

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CO₂激光是对选择性的不能切除的肿瘤进行组织气化的很有价值的工具, 可用于放射治疗不敏感的恶性肿瘤或较大的良性肿瘤, 例如腹膜后子宫内膜瘤。我们曾使用 Sharplan 791 型 He 激光器对粘连于骨盆、阴道、膀胱以及腹股沟的肿瘤进行气化。

在 CO₂ 激光用于血管肿瘤时出血是需要防止的问题, 因在激光束能凝固小血管之前已被血液吸收而失去作用。为此, 我们成功地使冷冻外科手术与激光外科手术相结合而控制出血。

使用 Sharplan 791 型 He 激光烧灼外科方法切除了已孕或未孕患者选择性的浸润型外阴恶性肿瘤与良性外阴巨大尖形湿疣。

应用相干辐射公司的 400 型 CO₂ 激光器, 通过外科显微镜的光学系统对阴道癌前期病灶作了显微外科肿瘤气化治疗。

详细讨论了 CO₂ 激光外科技术并用图表说明, 叙述了使用激光进行肿瘤手术时会发生的危险以及安全注意事项。