

## CO<sub>2</sub> laser surgery in plastic surgery, with good surface wound healing

*N. Nimsakul*

(Takai University)

During the past 3 years, at our center in Japan, over 600 cases in almost every field of surgery, with the most in plastic and reconstructive surgery field have been successfully performed using CO<sub>2</sub> laser. The machines in use are Sharplan 791 (Israel), S-20 (Israel), System 400 (U. S. A.), and Lasery-60 (Japan)

Cases in plastic and reconstructive surgery cover a wide range of procedures, with main application in removal of benign and malignant tumors, resulting in reduction of bleeding in very vascular tumors removal, and higher radicality anticipated in malignant tumor operation.

In plastic surgery, no matter what kind of the instrument is used, good surface wound healing must be obtained, and there is no exception for laser surgery. Thus, in order to get good surface wound healing when using CO<sub>2</sub> laser, the basic study of thermal effect upon the tissue had been thoroughly investigated, and cooling methods by N<sub>2</sub> gas and normal saline were developed.

By using our technics, surface wound healing comparable to those using scalpel can be obtained, and extended application in fine plastic surgery even skin incision in pure esthetic procedure can be done with satisfactory result.

## 创伤面愈合良好的整形外科中的 二氧化碳激光外科

*N. Nimsakul*

(东海大学)

过去三年中,有 600 多例各类外科疾病患者,在我们(日本)的整复外科中心成功地应用 CO<sub>2</sub> 激光进行治疗。应用的器械为 Sharplan 791 (以色列), S-20 (以色列),系统 400 (美国)和 Lasery-60(日本)。

整复外科治疗的病例,采用了各种方法。主要是去除良性和恶性肿瘤、血管丰富肿瘤去除时出血减少。并且期望恶性肿瘤获得根治。

在整形外科中,不论采用何种器械,必须使创面愈合良好,激光外科亦无例外。因此,当应用 CO<sub>2</sub> 激光。为了使创面愈合良好,并进行了热效应对组织作用的研究,同时采用氮气和生理盐水的冷却方法。

采用我们的技术,可获得与手术一致的创面愈合,扩大其在整形外科甚至在纯粹美容的皮肤切开中的应用范围,可获满意的效果。