

## No. 9.

### 초기 성문암종에서 레이저를 이용한 미세성대절제술의 효과

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초기 성문암종은 방사선치료나 보존적 수술만으로도 높은 완치율을 얻을 수 있으나, 방사선치료에 의한 점막의 염증, 수술적 치료에 의한 음성장애 등 다양한 합병증으로 인하여, 최근 현수후두경하에 레이저를 이용하여 선택적으로 미세성대절제술이 시도되고 있다.

저자들은 레이저 미세성대절제술의 효과를 판정하고자 전향적으로 초기 성문암종 환자중 KTP-532 레이저를 이용하여 미세성대절제술을 시행한 후 1년 이상 추적관찰이 가능하였던 23례(T1 16례, T2 7례)의 치료결과를 분석하였다. 레이저를 이용하여 1-3회의 미세성대절제술을 시행한 결과 14례(60.9%)는 레이저 미세성대절제술 단독으로 치유되었으나, 7례는 방사선치료를 추가하였으며 이중 3례는 방사선치료에도 실패하여 구제수술을 시행하였다.

## No. 10.

### 미세수술에서의 정맥이식의 유용성

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목적 : 이 논문의 목적은 1) 미세혈관 수술시 정맥이식을 하면 혈전의 위험이 많아지고 유리피판의 실패 가능성이 높아지는지에 관하여 조사하며, 2) 임상적으로 정맥이식의 필요와 유용성에 관하여 분석하고자 함이다.

재료 및 결과 : 저자는 1986년 5월부터 1995년 8월까지 시행한 208예의 유리피판술중 24예에서 공여부와 수여부 혈관 사이의 동정맥에 2cm에서 45cm길이의 정맥이식을 사용하였다.

전체 208예의 유리피판술중 8예에서 문합부의 혈전으로 인한 피판의 괴사가 있었으며, 수술중 정맥이식을 시행한 24예에서는 1예의 실패도 없었다.

고찰 : Bunke 등의 보고에 의하면 725예의 유리피판술중 7.6%의 실패가 있었으며, 75예의 정맥이식을 한 유리피판술중 20%의 실패가 있었는 바, 이는 적어도 1군데 이상 문합부의 증가, 수술시간의 증가, 이식된 혈관의 꺾임이나 뒤틀림, 본래부터 좋지않은 상태의 환부에서 수술을 시행하였기 때문이라 하였다.

저자는 말초 혈관 질환, 방사선 괴사후 조직의 재건, 외상성 하지의 환부에 10cm 이상의 긴정맥이식으로 혈류가 좋은 수여부 혈관에 공여부 혈관을 연결하였으며, 예상치 않았던 혈관의 기형이 있거나, 수술중 혈관의 길이 부족이 있을 경우, 혈관경의 차이가 심한 경우에 3cm 내외의 짧은 정맥이식을 하였다. 채취된 혈관의 세척없이 철저한 지혈과 섬세한 조작을 통해, 공여부와 수여부 혈관사이 거리극복을 위해 이식되었다.

결론 : 미세수술시 정맥이식은 문합부의 증가와 수술시간의 증가가 있지만, 1) 결코 피판의 실패를 높이지 않으며, 2) 길이의 부족에 의한 혈관의 긴장을 줄이며, 혈관의 상태가 좋은 수여부 혈관을 선택하여 문합함으로써 오히려 성공율을 높일 수 있다.

**No. 8.**

## **Free Omental Flap in Progressive Hemifacial Atrophy**

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Progressive hemifacial atrophy was first described by Parry in 1825 and then detailed report was followed by Romberg in 1846, so the disease has been called Romberg's disease. The etiology is not clear, but infection, trigeminal neuralgia and sympathetic loss are suspected as inciting causes.

Atrophy typically begins before the age of 20 years, affecting the subcutaneous tissue and skin with later involvement of the muscles and osteocartilaginous framework.

Most authors recommend foregoing treatment until the disease burns itself out. First skeletal supports are restored by bone graft or tantalum mesh. Soft tissue reconstruction is performed by fat graft, fascial or dermal graft or insertion of implants, but these methods are not effective, so recently pedicled flaps or free flaps are used for maintaining the volume.

The authors experienced good result using free omental flap in 25 year-old female patient of progressive hemifacial atrophy, so we report it with references.

**No. 9.**

## **Laser-assisted Laryngeal Microsurgery for Early Glottic Cancer**

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For early glottic cancer, high cure rate can be obtained by radiation therapy or organ preservation surgery alone. But complications such as mucositis and voice change due to surgery are the reasons for the introduction of laser-assisted laryngeal microsurgery.

We have done a prospective study on 23 cases of early glottic cancer who received KTP532 laser-assisted laryngeal microsurgery(LALM) and were able to follow for more than a year(T1 16 cases, T2 7 cases). The therapeutic outcome was analyzed to evaluate the efficacy of laser-assisted laryngeal microsurgery.

At 1 year after the end of one to three times of LALM 14 cases(60.9%) were cured with LALM alone, 7 cases underwent additional courses of external radiation therapy among which 3 patients had the disease persisting after radiation therapy and had to take salvage operations.

**No. 10.**

## **Usefulness of Vein Graft in Microsurgery**

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**PURPOSE** : The purpose of this study is 1) to investigate if there is a higher rate of free flap failure in cases of vein graft compared to non-vein graft, and 2) to analyze the clinical usefulness and necessity in elective free flap surgery.

**MATERIAL AND RESULTS** : We have experienced 24 cases of vein grafts out of 208 free flaps from May, 1985 until August, 1995. We used vein grafts that were from 2cm to 45cm in length between the recipient and donor vessels. We failed in 8 cases out of the total 208 free flaps, however there was no failure among the 24 cases that needed vein grafts between the donor and recipient vessels.

**DISCUSSION** : Dr. Bunke reported a 7.6% failure rate in 725 of his free flap operations, and a 20% failure rate in 75 of his cases using vein grafts during surgery. This difference of success rates was caused by the increased number of anastomosis site, increased operation time, torsion or kinking of grafted vein, poor condition of the operative field. We used to intentionally use long vein grafts longer than 10cm for improved blood flow in cases of peripheral vascular disease, radionecrotic wounds, traumatic lower legs, and incidentally use the short vein grafts of about 3cm in length to overcome the shortage of vascular length in cases of unexpected vessel anomaly, short donor vessel, and difficult access to recipient vessel after radical neck dissection. All of the obtained veins were carefully handled with ligation of even small branches and were transferred to the recipient site without irrigation.

**CONCLUSION** : Even though the vein graft increases the operation time and the number of anastomosis sites, it does not result in the increased failure rate of free flap surgery. In addition to the reduced tension between recipient and donor vessel, the surgeon could select better recipient vessels having vigorous blood flow so that the vein graft in microsurgery could provide the higher success rate of free flap.

No. 12.

## **Reconstruction of Defects in Lower Extremity and Foot with Free Flap Transfer**

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Severe upper and lower extremity trauma may result in soft tissue exposed bone and the subsequence of risk of chronic osteomyelitis of malunion of fracture fragments. Such injuries present a major reconstructive problem. But Since the introduction of microsurgical technique, free muscle and myocutaneous flaps were employed to provide coverage of severely injured defects.

Since Tai and Hasegawa (1974) first reported a breast reconstruction using by rectus abdominis myocutaneous flap, the free rectus myocutaneous flap has been widely employed for breast reconstruction, head and neck reconstruction, and extremity reconstruction in these days.

The authors present their successful experience with free rectus abdominis muscle and rectus abdominis myocutaneous flaps for upper and low extremity reconstruction. From Nov. 94. to with free rectus abdominis muscle flap or free rectus abdominis myocutaneous flap. All flaps except 1 case were survived without severe complications.

As free muscle or myocutaneous flap, the free rectus abdominis flap has the advantages of a reliable pedicle, easy dissection, and an acceptable donor site, so it seems logical to apply the free rectus abdominis flap to apply in upper and lower extremity reconstruction.