No. 10.

지연처치가 동맥화된 정맥피판의 미세혈류에 미치는 효과

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외과적 지연처치는 동맥 피판의 원위부 생존율을 높이거나 제한된 생존 범위를 보다 더 크고 넓은 피판으로 만드는데 효과적인 방법으로 이용되어 왔다.

이러한 지연처치를 동맥화된 정맥피판에도 응용할 수 있는지 확인하기 위하여 가토의 귀를 이용하였고 지연처치의 방법으로 이개 내부의 연부조직만 절단하고 정맥은 모두 개존된 상태로 보존한 부분적 지연처치와 연부조직 절단과 동시에 후반부 정맥을 모두 결찰한 광범위 지연처치로 구분하여 지연처치를 실시하지 않은 대조군과 비교하였다.

주혈관 및 미세혈관의 변화를 관찰하기 위하여 일정한 농도와 양의 Microfil®을 동일한 속도로 혈관내 주입한 결과 지연처치를 실시하지 않은 군은 주혈관만 가시화 되었을 뿐 미세혈관이 가시화되지 않은데 비해 지연처치를 실시한 군의 미세혈관은 Microfil®로 많이 채워져 있었다.

한편 지연처치의 방법에 따라서도 미세혈류의 변화가 나타나는데 광범위 지연처치의 방법에 따라서도 미세혈류의 변화가 나타나는데 광범위 지연처치가 부분적 지연처치에 비해 미세혈관의 가시화가 보다 일찍 그리고 넓게 나타나 지연처치를 광범위하게 실시할수록 동맥화된 정맥피판의 생존율이 훨씬 높아짐을 알 수 있었다.

No. 11.

하악골 재건술에 있어서 정맥의 역혈류를 통한 유리비골 이식술 치험례

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오늘날 사회가 복잡해지고, 교통수단의 발달로 인한 종양이나 교통사고로 인한 외상후, 광범위한 하악골 재건술의 요구가 증가되어왔다.

과거 19세기말, 20세기초부터, 하악골 재건에 대한 관심과 연구대상으로서 시작된 하악골 재건술은 제 1차 및 2차 세계대전을 겪으면서 급격한 발전을 보여왔다.

최근에는 관심의 대상이 된 "Free Fibular Bone Graft"은 1975년 Taylor에 의해 처음 보고된 이래, 광범위한 하악골 재건술 영역에선, 1988년 D. Hidago에 의해 수십 례(Case)가 보고된 이래, 여러 악안면

No. 9.

The Effects of Surgical Delay Procedure on the Survival of Arterialized Venous flap

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An arterial flap using as free flap has limitation to apply clinically in case of having limited donor sites or developing circulatory problem by sacrificing major artery in donor site.

Also it is difficult and takes much time to dissect an arterial flap because arteries are located deeply.

So many other types of flaps have been studied to use more various donor site easily. Venous flap has been investigated to apply clinically lately. It is classified as pure venous flap and arterialized venous flap.

The survival of arterialized venous flap was demonstrated experimentally in 1981 and it has been used clinically since 1987.

But arterialized venous flap are to date still limited in their clinical application to small surface areas with predominantly axial vessel patterns. Partial necrosis of larger arterialized venous flaps remain an unsolved problem.

In search for means to increase their reliability, this study was designed to investigate the effects of surgical delay procedures on the survival of arterialized venous flaps by using rabbit ears.

As the result the survival rate and area of arterialized venous flap was much improved in case of performing surgical delay procedure for 2 or 3 weeks compared with undelayed group.

No. 10.

The Effect of Surgical Delay Procedure in the Microvascular Circulation of Arterialized Venous Flap

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Surgical delay procedure has been reported as effective method to improve survival rate and area of arterial flap.

We performed surgical delay procedure on the arterialized venous flap by using rabbit ears experimentally to see whether it gains same good result like in case of arterial flap. Rabbits were randomized into three groups. The delay procedure in the "minor-delay" group was done by dividing the dorsal soft tissue while preserving the central artery and all four major veins. In the "extensive-delay" group, only the two anterior drainage paths were preserved. In the "non-delay" group, ears were transected and immediate arterialization was done without performing delay procedure. An constant concentration, volume and speed of Microfil® was injected to see change in the major vessels and microvessels.

As the result, in the non delay group, only major vessels were visualized. In comparison, in the delayed group, both major vessels and microvessels were filled with Microfil®. Also a microvascular change in the extensive delayed group was appeared earlier and wider than minor delay group.

From this study we can support the concept "the more extensive delay, the larger the survibing area"

No. 11.

"Free Fibula Osteod-Cutaneous Flap" Via Reversed Vein Flow in Mandible Reconstruction

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Today, the need for mandible reconstruction surgery has greater emphasis than ever before. This is largely due to traumatic accidents and tumor happening in this highly developed society.

The interest in mandible reconstruction became a research subject in the late 19th and the early 20th century. The mandible reconstruction had greatly progressed through the 1st and 2nd World Wars.

"Free Fibular Bone Graft", the latest interest, was First reported by Taylor in 1975. This method has used by many maxillofacial reconstructive surgeons since dosens of cases in extensive mandible reconstruction reported by D. Hidago in 1988. In this class; "Free Fibular osteo-cutaneous Flap" was performed after revolving large portion of mandible due to squamous cell cancer in oral cavity.

In the procedure of the "Free Fibular Bone Graft", the vein of the flap showed the ischemic condition with recanalization accompanying the deep vein thrombosis in the normal proximal vein, This made it necessary to perform operation on microvascular anastomosis of venous flow.

Microvascular anastomosis operation using reversed flow of distal vein was used to resolve this problem. Therefore we report out successful operation of the "Free Fibular osteo-cutaneous Flap"

Key Words : Mandible reconstruction, Fibular free flap, Deep vein thrombosis