

Analysis and Study of the Treatment of the Toe Defect under the Conditional Arrangement of the Toe Artery Skin Flap

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ABSTRACT

To study on the clinical efficacy of the repairing of the toe defect of the tip of the toe artery with skin flap. 48 patients with tip of toe defects who were admitted to our department from May 2014 to December 2015 were randomly divided into two groups: control group and observation group, 24 cases in each group. The patients in the control group were treated with abdominal pedicle flap while the patients in the observation group were treated with the toe artery skin flap for repair. The clinical curative effect of the two groups was analyzed. The total effective rate of clinical treatment was 23 (95.83%) in the observation group was significantly higher than that in the control group, 19 (79.16%), and the elasticity and texture of the flap were good and no obvious adverse reaction occurred. The difference between the two groups was significant, $p < 0.05$. The use of the toe artery skin flap for the treatment of the tip of toe defect has a significant clinical effect, and no serious adverse reactions occurred, highly safety.

Introduction

The tip of toe position is special, easy to damage, but for the repairment is having a greater difficulty. In order to help the tip of toe defect patients seeking better clinical treatment of prognosis and to help patients improve the symptoms, the study selected 48 patients with tip of toe defect patients from May 2014 to December 2015 in our hospital who undergo orthopedic treatment. They are divided into two groups which were given different treatment, compared the two groups of patients, the review results are as follows.

1 Materials and method

1.1 General information

In this study, we selected 48 patients with tip of toe defects who were admitted to our department from May 2014 to December 2015. They were divided into two groups in random group: control group and observation group. Among them, the control group of patients in 24 cases, 13 cases of male patients, male patients with clinical ratio of 13 (54.16%), female patients in 11 cases, the clinical proportion of female patients was 11 (45.83%), age 23- 53 years old, aver-

age (37.35 ± 3.25) years old. Weight crush injury in 10 cases, 5 cases of cutting injury, 9 cases of wound injury. Injured to admitted hospital average (2.37 ± 0.28) h; the observation group was 24 cases, 14 cases were male patients, the clinical proportion of male patients was 14 (58.33%), 10 cases were female patients, the clinical proportion of female patients for 10 (41.66%), aged 24-54 years, mean (38.42 ± 4.17) years. Weight crush injury in 9 cases, 6 cases of cutting injury, wound injury in 9 cases. Injured to admitted admission average (2.41 ± 0.32) h. There was no significant difference between

between the two groups of patients is statistical significance [3].

2 Results

The total effective rate of clinical treatment was 23 (95.83%) in the observation group was significantly higher than that in the control group's 19 (79.16%), and the elasticity and texture of the flap were good and no obvious adverse reaction occurred. There is a significant difference between the 2 group, p<0.05, see Table 1 for details.

Group	Cases (n)	Invalid (%)	Effective (%)	Remarkably effective (%)	Total Effective rate (%)
Control group	24	5 (20.83%)	9 (37.52%)	10 (41.66%)	19 (79.16%)
Observational group	24	1 (4.16%)	8 (33.33%)	14 (58.33%)	23 (95.83%)
χ^2					2.36
p					p<0.05

Table 1 Comparison of the two groups of patients with clinical efficacy (%)

the two groups in general data, P> 0.05.

1.2 Methods

In the control group, the patients were treated with abdominal pedicle flap repair. The patients in the observation group were treated with the pedicled skin flap for repair. After the anesthesia treatment, the supine position was first cut from the proximal part of the flap to the deep fascia, on the dorsal medial dorsal cutaneous nerve in the flap within the clear distribution, along the deep fascia on the flap precisely cut[1]; in the pedicle of 1.0 cm-1.5 cm wide fascia tissue retention. After cutting the flap, the tourniquet will be released, and the flap blood vessels will be carefully observed. After being determined as good, the wound will be repaired[2].

1.3 Observational indicators

The clinical efficacy of the two groups of patients in the treatment of different ways to compare.

Remarkably effective: Symptoms disappeared, wound healing, the clinical indicators returned to normal;

Effective: Compared with before treatment, the symptoms were significantly improved; Invalid: no improvement in symptoms, or even worse

1.4 Statistical analysis

SPSS17.0 software was used to collect all the information and data for statistical analysis, measurement data using t test, data counting using χ^2 test, when P <0.05 indicate the data

3 Discussion

The position of the tip of toe is special and can be easily damaged. The type of injury to the tip of the toe is mainly caused by weight crush injury, cutting injury, wound injury, and because the toe injury is more complicated, which prone to infection, if not get early treatment, the patient's condition will cause delays, which making the patient missed the best treatment time, thus poses a serious threat to the patient's physical health. Therefore, seeking tip of toe injury better clinical treatment which to help the toe treatment patients with toe injury is effective in improving prognosis.

This study was used retrospectively analysis of the clinical data of 48 patients with toe apodization in orthopedic department. The aim of this study was to investigate the clinical efficacy of the repair of the toe flap of the toe artery. The results showed that the total effective rate of clinical treatment was 23 (95.83%) in the observation group was significantly higher than that in the control group 19 (79.16%), and the elasticity and texture of the flap were good and no obvious adverse reaction occurred. There was significant difference between the 2 group, P <0.05. Abdominal pedicled skin flap repair method and the toe artery skin flap repair in the tip of toe defect in the clinical treatment have a certain clinical efficacy, but the toe artery skin flap repair treatment is more superior. Compared with the previous method of repair, the advantages of the flap skin flap repair are: flap thickness, colour and the area was relatively close to the implementation of the flap surgery is not well-known blood vessels and arteries constitute

damage, and the operation is relatively simple, so the clinical effect is very satisfactory[4]. For the anterior tibial artery injury cases can be used dorsalis pedis artery and foot artery anastomosis design flap[5]; implementation of the toe artery skin flap repair method can help patients to improve symptoms, making the wound quickly healing, which will help optimize the efficacy, ultimately to improve the clinical efficacy of patients and quality of life.

In summary, the toe artery skin flap repair for the treatment of tip of toe defect has a very significant clinical efficacy, and no serious adverse reactions, high safety.

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