

Observation and Treatment of Small Area Deep Burn Wounds in Plastic Surgery

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Abstract: Objective: To study the effect of plastic and cosmetic surgery on the repair of patients with small-scale deep burns. Methods: The treatment effect was studied with reference method. The patients who participated in the experiment were selected from 60 patients with small area deep burns treated in our hospital. All patients were divided into a routine group and a cosmetology group, each with 30 cases. The repair measures implemented by the patients in the conventional group adopt the conventional model. The patients in the beauty group use plastic and cosmetic surgery repair technology to compare the treatment effects of different repair methods of the two groups of patients with the quality of life of the patients. Results: After using plastic and cosmetic surgery repair technology in the beauty group, the total effective rate, ADL index, psychological function index, social function index, and physical function index were compared with those in the conventional group, which was significantly better than that in the conventional group. Significant, with statistical significance ($P < 0.05$). CONCLUSION: The use of orthopedics and cosmetic surgery in the repair of small-area deep burn disorders has significant effects, and the effectiveness of scar reduction has been reduced. The quality of life of patients has generally improved and can be widely used in clinical repair treatment.

Small area deep burns are one of the most common conditions received in clinical treatment. Patients who suffer from this condition for some reason will show ulcers and severe pain in the skin. Because this condition requires a long time to heal, or the phenomenon of multiple wounds cannot be healed naturally, transplantation treatment measures need to be taken to accelerate the healing rate of the affected area. In the implementation of transplantation surgery, infections often occur, and the therapeutic effect cannot meet the expected requirements [1]. With the continuous development of medicine, clinical plastic and cosmetic surgery technology has become the main technology in surgical repair surgery, and has been applied to the repair of small-area deep burns. This article studies the effects of plastic and cosmetic surgery repair technology, the specific content is as follows:

1 Materials and Methods

1.1 General Information

The patients in this experiment were selected from 60 patients with small area deep burns treated in our hospital from March 2016 to March 2019. All patients were divided into a routine group and a beauty group each by 30 lots. In the conventional group, the statistical age is in the range of 13-55 years, and the average age is (34 ± 21) years. There are 17 male patients and 13 female patients. According to the patient medical history statistics, within the range of 2-6 hours, the average medical history is (4 ± 2) h. Causes of burn symptoms: 12 cases of burns caused by boiling water, 10 cases of burns caused by chemical, and 8 cases of burns caused by heat pressure. The statistical age of the beauty group is in the range of 12-56 years, and the average age is (34 ± 22) years. There

are 18 male patients and 12 female patients. According to the patient's medical history statistics, within the range of 2-7h, the average medical history is (4.5 ± 2.5) h. Factors that cause burns: 11 cases of burns caused by boiling water, 9 cases of burns caused by chemical factors, and 10 cases of burns caused by thermal pressure. The data and medical history of the two groups of patients were analyzed by statistical software, and the results were not significantly different. The two groups of patients can be compared.

Inclusion criteria: The actual burns of both groups of patients met the diagnostic criteria for small area deep burns. Burns: 11 cases of hips, 9 cases of upper limbs, 15 cases of lower limbs, 12 cases of trunk, 6 cases of head and face, and 7 cases of neck.

1.2 Method

If the patient's wound is in the advanced category, bacterial culture can be given and antibiotic treatment can be performed based on the culture results. The wound necrosis tissue and the full-layer water-seeded granulation tissue are resected with effective expansion. During the incision treatment, the incision must be expanded to a position 0.5 cm outside the wound, and then electrocoagulation hemostasis measures are used to achieve hemostatic effect. After the hemostasis was successfully stopped, the wounds were cleaned with the new gillicide, normal saline and hydrogen peroxide. The selected concentration of normal saline was 0.1%, and the selected concentration of hydrogen peroxide was 3%.

Patients in the conventional group were given conventional repair and treatment measures. According to the actual wound situation, the skin grafting process was carried out. In the treatment, the operation steps should be strictly followed.

Patients in the cosmetic group used plastic and cosmetic surgery repair technology, and according to the patient's actual wound size, wound shape, burn site, local blood supply conditions, Z-plasty was used to repair the patient's wound. Carry out the work of rotating the flap while advancing, and then take the full posterior skin grafting measures and implement the wound repair work according to the method of large and medium thickness [2]. It should be noted that: direct ablation and suture are used to improve the patient's abdominal pedicled flap and diamond-shaped flap. Plastic and cosmetic surgery repair technology should be performed after the patient's necrotic tissue is completely removed, and the actual situation of the patient should be closely observed during the operation the patient's blood status should be treated with antibiotics promptly after surgery, and the stitches should be removed 10 days after surgery.

1.3 Judgment indicators

According to the two groups of patients after applying their own treatment measures, the treatment effect and quality of life were compared. The criteria for evaluating treatment effects are based on the "Chinese Standards for the Diagnosis and Therapy of Illnesses." Significantly: The clinical symptoms of the patient's burn completely improved, the indicators showed normal, and the wound healed well. Improvement: The clinical symptoms of the burn patients showed a basic improvement, and the indicators showed that they were basically normal, and the wound healing was average. Ineffective: The clinical symptoms of the burn patients did not improve, the indicators showed no change, and the wound healing did not heal effectively. Total effective rate of treatment = (significant improvement + improvement) number of cases / total number of cases $\times 100\%$.

The criteria for evaluating the quality of life were: using the total score of the ADL daily living ability test form and the GQOL quality of life questionnaire to evaluate the patient's quality of life. The contents of GQOL survey include: mental state, social ability, physical ability. The higher the total score, the better the patient's quality of life.

1.4 Statistical analysis

The data of the two groups of patients need to be compared. The data that needs to be analyzed is analyzed using the analysis function of SPSS19.0 statistical software. The analysis results are counted, n% is expressed, t test is used to measure the data, () is expressed, and P is obtained after statistical analysis. <0.05 , which indicates that this experiment has statistical significance.

2 Results

2.1 Comparison of treatment effects

After the treatment in the conventional group, according to the evaluation criteria of the treatment effect, it was concluded that 17 patients belonged to the significant standard, 6 belonged to the improvement standard, and 7 belonged to the invalid standard. After treatment in the beauty group, according to the evaluation criteria of the treatment effect, it was concluded that 23 patients belonged to the significant standard, 6 to the improvement standard, and 1 to the invalid standard. The effective rate of treatment reached 96.67%.

The comparison of treatment effectiveness between the two groups was significantly higher in the beauty group than in the conventional group, and there was a significant difference ($P < 0.05$). As shown in Table 1

Table 1 Comparison of treatment effects

Group	Number of cases	Significant	improvement	Ineffective	Total effective rate
Normal group	30	17	6	7	76.67%
Beauty group	30	23	6	1	96.67%
p-value	$P < 0.05$	$P < 0.05$	$P < 0.05$	$P < 0.05$	$P < 0.05$

2.2 Quality of life comparison

According to the evaluation of ADL and GQOL, the average score of ADL in the conventional group was (16.7 ± 3.8) , the average score of social function was (61.3 ± 5.8) , the average score of psychological function was (66.5 ± 9.3) , and the average physical function was Divide into (59.6 ± 7.9) points. In the beauty group, the average ADL score was (11.4 ± 3.1) , the average social function score was (49.5 ± 6.0) , the average mental function score was (55.9 ± 8.0) , and the average physical function score was (52.7 ± 6.5) . . According to the obtained quality of life scores, the quality of life scores of patients in the beauty group were significantly better than those in the conventional group, and there were significant differences in requirements, which had statistical significance ($P < 0.05$). As shown in Table 2

Table 2 Quality of life comparison

Group	Number of cases	ADL average score	Social function Average score	mental function Average score	Physical function Average split
Regular group	30	16.7 ± 3.8	61.3 ± 5.8	66.5 ± 9.3	59.6 ± 7.9
Beauty group	30	11.4 ± 3.1	49.5 ± 6.0	55.9 ± 8.0	52.7 ± 6.5
p-value	$P < 0.05$	$P < 0.05$	$P < 0.05$	$P < 0.05$	$P < 0.05$

3 Discussion

With the continuous improvement of people's living standards, the incidence of deep burns in small areas has gradually increased. Among the many burn patients, the proportion of daily life burns is relatively high, accounting for 93% of the total number of burns. When a patient has a second degree or higher burn, the skin or subcutaneous tissue will be seriously damaged, which belongs to the category of deep dermal damage. In this case, if the treatment is not carried out in a timely manner or the treatment measures taken are unreasonable, the wound will have the adverse

consequences of being difficult to heal. Deep burns can cause regenerative cells in the wound site to be damaged, reducing the number of regenerative cells. Patients will have micro blood tests and infections, which will make the wound difficult to heal [3]. Because the wound surface of small-scale deep burns has positive characteristics, the previous treatment measures are conservative dressing changes to promote wound self-healing. It can be known from practice that the healing effect of the wound cannot meet the expected requirements, and severe scars are produced. In addition, this treatment method is time-consuming and expensive, and the patient's pain is more serious. The patient has a strong resistance to this treatment method. Therefore, there is an urgent need for good treatment measures for the repair and treatment of burn wounds, which can not only treat burn wounds, but also can promote the skin recovery of patients and have the function of application.

As the level of plastic and cosmetic surgery technology continues to increase, the application of this technology in the repair of small-scale deep burns should be able to achieve the expected restoration goals. Based on this, this experiment studied the repair effect of the entire cosmetic surgery technology. This treatment process is a local flap transfer. It is known through practice that no high surgical requirements are needed, the surgical procedure is simplified, and the damage caused is of a lesser degree. After the wound is healed, it meets the aesthetic requirements and pays attention to The orientation of the flap, the blood supply conditions, and the length-to-width ratio. The area of the flap is above the area of the wound. Strict attention is paid to preventing tension when covering the wound. The actual blood transport status of the flap is strictly observed after surgery. The braking measures of the affected limb promote the development of repair and treatment in a benign direction. According to the results of this experiment, it can be seen that the treatment effect of plastic and cosmetic surgery technology reached 96.67%, while the treatment effect of conventional repair measures was only 76.67%. The quality of life of patients with plastic and cosmetic surgery technology also has great advantages after scoring. From this result, it can be seen that the use of plastic cosmetic surgery repair measures have significant effects, and significantly improve the quality of life of patients.

In summary, in the treatment of small-scale deep burn repair, the use of plastic and cosmetic surgery repair technology has better treatment effects, and significantly improves the quality of life of patients, and the wound surface is beautiful and functional. It can be known from this that plastic and cosmetic surgery repair technology has higher value for patients' repair and treatment, and can be universally used in repair and treatment.

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