Clinical Analysis of Areola Small Incision Surgery for Benign Breast Tumors

Stephan Ohlinger*

Ernst Moritz Arndt Univ Greifswald, Dept Gynecol & Obstet, Greifswald, Germany

*Corresponding authors: Stephan Ohlinger, Email: lt2441824645@126.com

DOI: [10.37155/2717-5278-2021-03-02-3](https://doi.org/10.37155/2717-5278-2021-03-02-3)

Abstract: Objective: To explore the clinical treatment analysis of areola small incision surgery for benign breast tumors. **Methods:** 100 patients with benign breast tumors were selected as the test subjects, divided into 2 groups by simple randomization method, 50 cases were the control group, 50 cases were the experimental group, and the admission time was from January 2020 to June 2021; the control group Traditional open surgical treatment was given, and the experimental group was treated with areola small incision surgery. The operation status, complications and treatment satisfaction of the two groups were compared. **Results:** The operation time and hospital stay of the experimental group were shorter than those of the control group, the amount of intraoperative blood loss was less than that of the control group, and the length of operation was shorter than that of the control group ($P<0.05$); the total incidence of complications in the experimental group was lower than that of the control group ($P<0.05$); the total satisfaction of clinical treatment of the experimental group was higher than that of the control group ($P<0.05$). **Conclusion:** The clinical treatment of benign breast tumors with areola small incision surgery is significant.

Keywords: Benign breast tumor; Areola small incision surgery; Clinical treatment; Analysis

Benign breast tumor is a common female group disease. The type of fibroadenoma is the main pathological part, and the proportion of young women is relatively high.^[1] Although benign breast tumors are benign lesions. With the gradual development of the disease, they may evolve and deteriorate and become cancerous if they are not treated in time and can not be effectively controlled, which will seriously affect the physical and mental health, normal life and quality of life of patients.^[2] Surgery is the main treatment for benign breast tumors. Breasts are particularly important for women. Therefore, we not only need good

treatment effect, but also need to pay more attention to the beauty of breast and protect breast function in the clinical treatment of benign breast tumors.^[3] Based on this, the study aims to explore the clinical analysis of areola small incision surgery in the treatment of benign breast tumors.

1. Materials and Methods

1.1. General Materials

100 patients with benign breast tumors were selected as the subjects. They were divided into two groups by simple randomization method, 50 as the

© The Author(s) 2021. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, sharing, adaptation, distribution and reproduction in any medium or format, for any purpose, even commercially, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

control group and 50 as the experimental group. The admission time was from January 2020 to June 2021. In the experimental group, the average age was (44.40 ± 5.80) years old, the tumor diameter was 62-211mm and the tumor diameter in average age was (155.20 ± 30.50) mm; In the control group, the average age was (44.50 ± 5.70) years old, the tumor diameter was 63-210mm and the tumor diameter in average age was (155.30 ± 30.45) mm; The general data of patients with benign breast tumors were comparable between the two groups ($P > 0.05$).

Inclusion criteria: ① The patients were diagnosed as benign breast tumor by color Doppler ultrasound; ② Relevant clinical data were complete; ③ Communication, understanding and expression abilities were normal.

Exclusion criteria: ① Pregnant women and lactating women; ② Patients with poor compliance and unable to cooperate with the treatment; ③ Patients with vague consciousness and psychological disorder; ④ Patients with severe chronic underlying diseases (diabetes and hypertension); ⑤ Patients with with internal prosthesis in their breasts.

1.2. Methods

The patients in the control group were treated with traditional open surgery: The patients chose supine position and implemented local anesthesia; The patient's skin was cleaned by routine disinfection, the patient's chest was radiated, and the specific tumor location was determined; The operator made a surgical incision to free the tissue, exposed the tumor, separated the tumor from the patient's breast tissue, routinely stopped bleeding, cleaned the wound and bound it.

The patients in the experimental group were treated with areola small incision: B-ultrasound examination was performed one day before operation to confirm the specific location of breast mass, the corresponding body surface was marked, carefully measured and the data was recorded, including tumor size, tumor activity degree, distance between tumor and areola and so on, and the relevant data was combined to consider the operation feasibility and adjustment contents required by operation and so on; Before the

operation, the operator shall mark the specific tumor position and incision position with a medical skin marker, assisted the patient to adjust and maintain the supine position, and properly adjusted the patient's position according to the specific operation needs and specific tumor position; Local infiltration anesthesia with 1% lidocaine was performed, the location of the tumor was investigated carefully, and an arc incision at the corresponding areola is made (generally speaking, the length of the surgical incision is less than half the circumference of the areola); The operator cut the skin to the subcutaneous superficial fascia layer, started blunt separation from the superficial fascia layer, stopped at the location of the tumor, the flap was free (and the free distance should be greater than the distal position marked before operation), and pulled the skin and superficial fascia to expose the glands to the greatest extent. The operator pushed the tumor to the areola area with one hand, lifted the distal gland of the tumor with vascular forceps with the other hand, and cut it (if the gland had a capsule, it needed to be separated along the outside of the capsule). The operator completed the segmental resection (or tumor resection) in combination with the preoperative positioning guidance and intraoperative exploration; Electrocoagulation hemostasis was used to treat the location of active bleeding without routine suture so as to avoid the destruction of breast shape; The operator decided whether to retain the negative pressure drainage tube or not according to the actual condition of the patient; Absorbable suture was selected for subcutaneous tissue suture and true cortical suture, puliling suture was selected for continuous suture of skin incision to control the tension of incision, and vicho suture was used for local suture to prevent scar formation; After the successful completion of the operation, the local elastic bandage was used for pressure bandage (the bandage lasted for 12-24 hours), and the suture could be removed 10 days after the operation.

1.3. Observation Index

The operation indexes (including operation time, hospital stay, intraoperative bleeding, operation length), complications (including local infection, local hematoma, skin scar) and treatment satisfaction were compared between the two groups.

1.4. Statistic Analysis

Using data processing SPSS 17.0 system, the measurement data was described as ($\bar{x} \pm S$). After T-test, the counting data was described as percentage (%) for chi square analysis.

2. Results

2.1. Comparison of Surgical Indexes between the Two Groups

The operation length of the experimental group was shorter than that of the control group, the amount of intraoperative bleeding was less than that of the control group, and the operation time and hospital stay were shorter than those of the control group ($P < 0.05$).

Table 1. Comparison of Surgical Indexes between the Two Groups ($\bar{x} \pm S$)

Group(n)	Operation time(min)	Hospital stay(d)	The amount of intraoperative bleeding(ml)	Operation length(mm)
Experimental Group(n=50)	20.30 $\pm$ 3.50	5.60 $\pm$ 1.10	15.30 $\pm$ 1.50	19.50 $\pm$ 1.10
Control Group(n=50)	36.50 $\pm$ 3.60	7.70 $\pm$ 1.50	27.20 $\pm$ 1.40	35.60 $\pm$ 1.50
T Value	22.8146	7.9830	41.0101	61.2030
P Value	0.0000	0.0000	0.0000	0.0000

2.2. Comparison of Complications between the Two Groups

The total incidence of complications in the experimental group was significantly lower than that in the control group ($P < 0.05$).

Table 2. Comparison of Complications between the Two Groups [n (%)]

Group(n)	Local infection	Local hematoma	Skin scar	Total incidence
Experimental Group(n=50)	1 (2.00)	1 (2.00)	1 (2.00)	3 (6.00)
Control Group(n=50)	5 (10.00)	4 (8.00)	3 (6.00)	12 (24.00)
χ^2 value	-	-	-	6.3529
P value	-	-	-	0.0117

2.3. Comparison of Treatment Satisfaction between the Two Groups

The total satisfaction of patients in the experimental group was significantly higher than that in the control group ($P < 0.05$).

Table 3. Comparison of Treatment Satisfaction between the Two Groups [n (%)]

Group(n)	Fully satisfied	Quiet satisfied	Dissatisfied	Total satisfaction
Experimental Group(n=50)	31(62.00)	17(34.00)	2 (4.00)	96.00 (48/50)
Control Group(n=50)	20(40.00)	20(40.00)	10 (20.00)	80.00 (40/50)
χ^2 value	-	-	-	6.0606
P value	-	-	-	0.0138

3. Discussion

With the continuous change of people's daily

living habits, the number of clinical benign breast tumors has increased in recent years.^[4] Traditionally, for benign breast tumor diseases, open surgery is used as the common treatment method. Although it can achieve ideal treatment results, large surgical incision can be left in the actual operation process, and some patients will have breast depression, which makes patients bear great psychological pressure while bearing physical pain. With the continuous development of social economy and the change of people's concept in recent years, people have higher and higher requirements for clinical surgical treatment. The implementation of surgical treatment not only requires good curative effect, but also needs to reduce the impact on the breast as much as possible, reduce or do not affect its aesthetics, etc.^[5]

Surgical resection is the main treatment scheme for patients with benign breast tumors at present, and the traditional surgical incision needs to expose the focus to the greatest extent. Although it can achieve obvious curative effect, the postoperative pain of patients is serious, which affects their postoperative rehabilitation speed, and can leave obvious breast scars, which affects their mental health and quality of life. In the long run, It is not conducive to ensuring the therapeutic effect.^[6] The small incision surgical treatment scheme of areola can reduce the physical injury of patients with benign breast tumors, minimize the length of surgical incision, reduce the breast injury, shorten the operation time and hospital stay, facilitate the early recovery after operation, and the treatment effect is good.^[7] Compared

with the traditional open surgery, the small incision surgical treatment scheme of areola can remove all the lesions with one puncture during the operation, so the length of the surgical incision can be reduced, and then reduce the adverse phenomena such as postoperative breast depression, effectively ensure the beauty of the breast, and improve its psychological impact and quality of life.^[8]

The results showed that the reduction of intraoperative bleeding in the experimental group was more obvious than that in the control group, and the reduction of operation length, operation time and hospital stay in the experimental group was more obvious than that in the control group; In terms of complications, the decrease of the total incidence of complications in the experimental group was more obvious than that in the control group. In terms of total satisfaction with clinical treatment, the increase of total satisfaction with clinical treatment in the experimental group was more obvious than that in the control group.

It shows that the implementation of areola small incision surgery for patients with benign breast tumors has high application value, which can improve the operation quality and safety, and the treatment satisfaction of patients is high. Compared with the traditional open surgery, the former is more comprehensive and standardized.

To sum up, during the clinical treatment of patients with benign breast tumors, the active application of small areola incision surgical treatment scheme can effectively improve the operation quality of patients, reduce the amount of intraoperative bleeding, shorten the time of various indicators of operation, reduce the incidence of relevant postoperative complications and

improve the safety of operation. Patients are highly satisfied with operation and the overall treatment effect is excellent and worthy of clinical use.

References

- [1]. Y. Zhou, X. Tang, Y. Ren, et al. Curative Effect of Small Incision at the Areola Margin and Traditional Radial Incision in the Treatment of Benign Breast Tumors. *Clinical Journal of Medical Officer*, 2018,46(9):1105-1106.
- [2]. L. Yuan. Clinical Effect of Areola Small Incision Resection of Benign Breast Tumors. *World Latest Medicine Information*, 2020,20(48):52-53.
- [3]. G. Han, Clinical Analysis of Areola Small Incision in the Treatment of 78 Cases of Benign Breast Tumors. *Chinese Community Doctors*, 2019,35(20):29-30.
- [4]. P. Xiao, Clinical Evaluation of Areola Small Incision Tumor Resection in the Treatment of Benign Breast Tumors. *Journal of Frontiers of Medicine*, 2020,10(18):111-112.
- [5]. Y. Fang, X. Tang & L. Luo, et al. Efficacy and Safety of Circular Areola Incision in the Treatment of Benign Breast Tumors. *Contemporary Medical Symposium*, 2021,19(18):56-58.
- [6]. C. Xiao. Clinical Application of Areola Small Incision in Resection of Benign Breast Tumors. *Journal of Practical Gynecologic Endocrinology*, 2017,4(32):101,103.
- [7]. H. Yue. Comparative Study of Radial Incision and Small Incision at the Areola Margin in the Treatment of Benign Breast Tumors. *Clinical Medicine*, 2021,41(4):27-29.
- [8]. Y. Cai, Clinical Analysis of Areola Small Incision in the Treatment of 100 Cases of Benign Breast Tumors. *Chinese Community Doctors*, 2021,37(1):48-49.