

Hair removal repercussions on patient's self-esteem in craniotomy

REPERCUSSÕES NA AUTO-ESTIMA PROVOCADAS PELA TRICOTOMIA EM CRANIOTOMIA

REPERCUSIONES EN LA AUTO ESTIMA PROVOCADAS POR LA TRICOTOMÍA EN CRANEOTOMÍA

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ABSTRACT

This quantitative-based, prospective-oriented study aims to evaluate the repercussion of hair removal in post-craniotomy's patient self-esteem. Data show that the majority of patients mentioned not having an altered self-esteem due to hair removal; self-esteem was kept the same among patients that were instructed about the hair removal process. The major part of patients made use of accessories as a strategy to hide shaved areas and believed that hair removal damaged neither their quality of life nor their social relationships. We conclude that the feelings directly related to the decrease of self-esteem are loss of physical attraction, insecurity and shame. The employment of accessories is made necessary towards improving self-esteem, and healthcare professionals must work with the psychosocial aspects of pre and post-surgery patients.

KEY WORDS

Craniotomy.
Hair removal.
Self concept.
Nursing care.

RESUMO

O objetivo do estudo foi avaliar a repercussão da tricotomia na autoestima do paciente no pós-operatório de craniotomia. Estudo quantitativo do tipo prospectivo. Os dados mostram que a maioria dos pacientes referiu não ter sua autoestima alterada em função da tricotomia; predomina a manutenção da autoestima entre os pacientes que receberam orientação sobre a tricotomia; a maioria fez uso de acessórios como estratégia para ocultar a área raspada, e acredita que a tricotomia não prejudica a qualidade de vida nem interfere nas relações sociais. Conclui-se que os sentimentos relacionados à diminuição da autoestima são a perda da atração, a insegurança e a vergonha; há a necessidade de uso de acessórios para melhorar a autoimagem, e os profissionais da saúde devem trabalhar com os aspectos psicossociais dos pacientes no pré e pós-operatórios.

DESCRITORES

Craniotomia.
Remoção de cabelo.
Auto-imagem.
Cuidados de enfermagem.

RESUMEN

El objetivo del estudio fue evaluar la repercusión de la tricotomía en la auto estima del paciente en el posoperatorio de craneotomía. Estudio cuantitativo del tipo prospectivo. Los datos muestran que la mayoría de los pacientes refirió no tener su auto estima alterada en función de la tricotomía; predomina el mantenimiento de la auto estima entre los pacientes que recibieron orientación sobre la tricotomía; la mayoría hizo uso de accesorios como estrategia para ocultar el área raspada y piensa que la tricotomía no perjudica la calidad de vida y no interfiere en las relaciones sociales. Se concluye que los sentimientos relacionados a la disminución de la auto estima son la pérdida de la atracción, la inseguridad y la vergüenza; hay necesidad de usar de accesorios para mejorar la auto imagen y los profesionales de la salud deben trabajar con los aspectos psicossociales de los pacientes en el pre y pos operatorio.

DESCRIPTORES

Craneotomía.
Remoción del cabello.
Autoimagen.
Atención de enfermería.

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INTRODUCTION

Tricotomy can be defined as pre-operative shaving of the hair of a region of the body and is one of the care routines to which patients are required to submit before undergoing intracranial surgery in a number of institutions.

Tricotomy has been reported numerous times in literature, and was also practiced throughout history⁽¹⁻²⁾. The first description of tricotomy as an anti-sepsis process was reported by Gustav Neuber in 1886, who supported the practice as it allowed for a careful cleansing of the area. In 1895, Carl Beck stated that tricotomy must be performed, even in the presence of the tiniest hair strands⁽²⁾.

Traditionally, the removal of hair surrounding the surgical area facilitates visualization and the surgical technique, as well as reducing the potential for contamination of the incision with microorganisms that are present in the hair⁽³⁾. However, research shows that neurosurgeries performed without tricotomy have similar results to those performed with tricotomy^(1,4-7). A study of 638 patients who underwent different types of surgery without tricotomy found infection in 7 (1.1%) cases, supporting the fact that tricotomy does not reduce the risk of infection in the surgical wound⁽¹⁾.

The studies proved that the rates of infection in cranial procedures do not differ significantly among those who underwent tricotomy and those who did not. However, it was observed that, by preserving the hair, both psychological stress and changes in the patients' self-esteem were avoided^(1,4-7).

Certainly, preserving the hair plays a fundamental role in the patient's psychological condition in the post-surgery period, since the hair reflects the body image of an individual, not only for himself, but for society as a whole. In addition, hair contributes to the individual's self-esteem because it is related to appearance, physical attraction and even with health.

The concept of self-esteem has been studied and is considered an important indicator of mental health. Self-esteem can be defined as the trust in our ability to think and face challenges in life; it is trust in our right to happiness, to feel deserving qualified to voice our necessities and desires and to enjoy the outcomes of our efforts. Having low self-esteem means that one feels inadequate in life, wrong and incapable⁽⁸⁾.

The subjective evaluation that people attribute towards themselves, as positive or negative to some degree, is also part of self-esteem, conveying self-meaning beliefs and emotions and expressed in behavior. It can also be built as a permanent personality characteristic (trait) or as a temporary psychological condition (state)⁽⁹⁾.

Physical appearance is one of the attributes that strongly influence self-esteem, which is a stable trend of feeling good or bad about oneself⁽¹⁰⁾.

In patients that did not undergo tricotomy, self-esteem was observed to improve, and they returned quickly to their daily routines. In particular, patients working in occupations where appearance is important reported that they would not have returned to their jobs with an apparent surgical scar, fearing the negative reaction of other people⁽⁴⁾.

A study of 1128 people showed that 677 (60%) of them would rather have their hair removed if they had to undergo head surgery; 316 (28%) were undecided and 135 (12%) stated they would rather not have tricotomy. After choosing their preferences, the researchers explained that the results of the surgery were similar both with and without tricotomy. Again, they asked about people's preferences, resulting in 542 (48%) people who preferred the removal of their hair, believing it was more convenient; 169 (15%) were still undecided and would leave the decision for the surgeon, while others would research the convenience, ease and safety of the surgery. Of the 417 (37%) people that would not choose tricotomy, most were women and highly-educated young people who had an active social life and stated that they did not want to lose or affect their personality, beauty, appearance and/or confidence⁽¹¹⁾.

Hair loss has a negative influence on quality of life, affects self-esteem and can cause problems in social interactions⁽¹²⁻¹³⁾. Tricotomy is one of the nursing care routines in patients facing cranial surgery – therefore, the nursing team has a fundamental role in the psychological preparation of the patient who is submitted to a tricotomy during the pre-operative period.

During our practice in the neurosurgery unit of a university hospital in the city of São Paulo, we observed that partial and total tricotomies were performed as one of the nursing procedures in the pre-operative period for head surgeries. We observed that hair removal affects the patients' post-operative self-image and self-esteem, as well as their return to daily activities.

In patients that did not undergo tricotomy, self-esteem was observed to improve, and they returned quickly to their daily routines.

OBJECTIVES

The purpose of this study was to evaluate the main types of hair tricotomy performed in the pre-operative period for people undergoing cranial surgeries, and to relate tricotomy with changes in the patients' post-operative self-esteem.

METHOD

This was a prospective study, performed at the Neurosurgery Unit of Hospital São Paulo, from August, 2004 to October, 2005. The inclusion criteria were: patients admitted to hospital for elective head surgery, aged 18 or older. Patients with altered levels of consciousness in the post-operative period, or who had been admitted for head surgery before the study dates were excluded from this study.

This project was approved by the Review Board of the Federal University of São Paulo – Universidade Federal de São Paulo, file CEP 0889/04. The patients were informed about the research goals, the purpose of the study and how the results would be published, as well as any risks and discomfort. They were permitted to ask questions to have their doubts clarified. After they agreed to participate in the study, they signed a consent form.

The goals of the study were reached with the application of two data collection instruments, with one of them being a form for the patients' identification data and a questionnaire about the patients' self-esteem.

The following data were collected from the patients: initials, gender, age, medical diagnosis, length of the pre-operative period, length of the post-operative period, total hospitalization time and the type of tricotomy performed: total (hair is completely shaved off), demicranial (the right or the left half of the head's hair was shaved off), bicoronal (hair is shaved from the coronal suture towards the forehead), in a band (which, in this service, is performed at nearly 8 cm around the incision) or occipital (tricotomy of the occipital region).

Regarding the questionnaire, yes/no questions were present with the purpose of determining the patients' level of self-esteem and the repercussion of the tricotomy in the post-operative period in relation to the patient's psychological status.

For evaluating levels of self-esteem, the most common descriptive characteristics of people with low-self esteem were used: disliking, hating or rejecting themselves; feeling insecure, feeling less attractive, feeling old, reduced self-confidence, shyness, having an inferiority complex, having difficulties with interacting socially and feelings of depression⁽⁸⁾.

As for the post-operative repercussions, the questions focused on the recovery of the patients and the feelings related to their discharge from the hospital, such as fearing the reaction of people upon seeing them and the difficulties in returning to their daily activities and their social life.

RESULTS

The study included 50 patients in the post-operative (PO) period of elective head surgery, of which 30 (60%) were female and 20 (40%) were male. Age varied between 20 and 80 years (Table 1), with 9 (18%) patients aged 20-30, 7 (14%) aged 31-40, 18 (36%) aged 41-50, 10 (20%) aged 51-60, 5 (10%) aged 61-70 and 1 (2%) aged 71-80.

As for the remaining quantitative variables such as age, total hospitalization time, pre-operative time, post-operative (PO) time in the ICU and PO time on the nursing ward in days, figures were obtained for average values, standard deviation, and median, maximum and minimum limits, as observed in Table 1.

Table 1 - Distribution of age, pre-operative time, post-operative time in the ICU, post-operative time on the nursing ward and total time of hospitalization of patients admitted for head surgery - São Paulo - 2005

Variables	Average	Standard Deviation	Median	Maximum Limit	Minimum Limit
Age (years)	45.3	13.3	46.5	80	20
Pre-operative time (days)	10.5	7.9	8	32	1
PO ICU time (days)	2.7	1.8	2	10	1
PO nursing ward time	2.5	1.5	2	8	1
Total hospitalization time (days)	18.3	9.7	16.5	43	3

The medical diagnoses, made post-operatively, were divided between supratentorial tumors, infratentorial tumors, brain aneurysm clippings, Moyamoya Syndrome, bone defect correction and craniectomy performed to correct Arnold Chiari's malformation (Table 2). Regarding the former, they include the for the exeresis of temporal, frontal, parietal, parieto-occipital, fronto-parietal, temporo-parietal, intraventricular (3rd ventricle) tumors, III ventriculostomia and exeresis of sphenoid wing meningioma. The latter covers the exeresis of posterior fossa tumors, posterior fossa neurocysticercosis tumors and cerebellopontine angle tumors.

The teaching provided regarding the need for tricotomy in the pre-operative period was reported by 32 (64%) pa-

Table 2 - Patients included in the study, according to the medical diagnosis in the post-operative (PO) period - São Paulo - 2005

Diagnosis	N	%
Supratentorial tumors PO	28	56
Infratentorial tumors PO	6	12
Brain aneurysm clipping PO	13	26
Moyamoya Syndrome PO	1	2
Bone defect correction PO	1	2
Craniectomy performed to correct Arnold Chiari's malformation PO	1	2
Total	50	100

tients; 18 patients (36%) mentioned that they did not receive any teaching. Of those who received teaching, the surgeon was the one who performed it in 26 (81.2%) patients, and the nurse in 6 (18.8%) patients.

When lowered self-esteem is cross-checked against teaching received during the pre-operative period, of the 32 (64%) patients who received teaching, 23 (71.9%) reported that their self-esteem was not reduced, while 9 (28.1%) reported that it was reduced. Of the 18 (36%) patients who mentioned that they had not received teaching regarding tricotomy, 10 (55.5%) stated that their self-esteem was reduced, and 8 (44.5%) stated that it was not.

Regarding the types of tricotomy performed (Table 3), 29 (58%) were shaped as a band. Of these, 14 (48.3%) were done in the frontal-parietal-temporal region, 8 (27.6%) occurred in the frontal-parietal region, 4 (13.8%) in the parietal-temporal region, 2 (6.9%) in the parietal-occipital region and 1 (3.4%) in the frontal-parietal-occipital region.

The satisfaction of the patients regarding the type of tricotomy performed showed that 40 (80%) were satisfied and 10 (20%) were unsatisfied.

When the patients were asked about their choice regarding the size of the region to undergo tricotomy, compared to the actual tricotomy, 26 (52%) would choose the same size,

Table 3 - Distribution of the type of tricotomy performed prior to cranial surgery - São Paulo - 2005

Type of tricotomy	N	%
Total	6	12
In a band	29	58
Bicoronal	7	14
Demiceranial	3	6
Occipital region	5	10
Total	50	100

13 (26%) would choose a larger area and 11 (22%) would choose a smaller area. However, when asked about the choice of another type of tricotomy, compared to the actual tricotomy, 32 (64%) would not choose another type, while 18 (36%) stated they would, with 16 (88.9%) choosing total tricotomy and 2 (11.1%) choosing a tricotomy in a band.

As for the importance of hair to physical appearance, 44 (88%) patients believed that hair was important and 6 (12%) believed that it was not important.

Changes in self-esteem were evaluated through feelings of insecurity, depression, inability to interact socially, inferiority, shame, reduced self-confidence, the feeling of being older and feeling less attractive (Table 4).

Table 4 - Feelings of reduced self-esteem in relation to the post-operative tricotomy - São Paulo - 2005

Feelings	Yes		No		Total	
	N	%	N	%	N	%
Insecure	24	48	26	52	50	100
Depressed	0	0	50	100	50	100
Older	6	12	44	88	50	100
Unable to interact socially	7	14	43	86	50	100
Less attractive	26	52	24	48	50	100
Inferior	2	4	48	96	50	100
Ashamed	13	26	37	74	50	100
Reduced Self-Esteem	5	10	45	90	50	100

Regarding the utilization of accessories to hide the tricotomy, 35 (70%) of the patients were willing to use some sort of covering accessory. Of these, 16 (45.7%) would use a cap, 10 (28.6%) would use a scarf, 4 (11.4%) would use a bandanna, 4 (11.4%) would use a wig and 1 (2.9%) would use a hat, while the remaining 15 (30%) would not wear anything.

When the reduced self-esteem following the tricotomy is related to using some sort of accessory, 15 (79%) of the patients with low self-esteem after the tricotomy would use them – seven would wear a cap, six would wear a scarf, one would wear a wig and one would wear a hat. Of the 20 (65%) patients with no alteration in their self-esteem, nine would choose a cap, four would wear a bandanna, four would wear a scarf and three would wear a wig.

Analyzing the association between reduced self-esteem after the tricotomy and the patients' intentions regarding their hair after leaving the hospital, of the 19 patients who reported low self-esteem, 7 (37%) would get a different haircut, 6 (32.5%) would not change their haircut and 6 (32.5%) would shave all of their hair. Of the patients who reported not having their self-esteem reduced, 10 (32%) would not change their haircut, 10 (32%) would get a different haircut and 11 (36%) would shave all their hair.

Regarding the choice of the patients to either keep or remove the head bandage because of its interference on their self-esteem, 26 (52%) would keep the bandage, 19 (38%) were indifferent and 5 (10%) would remove it.

When asked about the relationship between post-operative recovery and the feeling caused by the tricotomy regarding appearance, 30 (60%) patients believed that the tricotomy affected their post-operative recovery, while 20 (40%) did not.

Patients were asked about being afraid of the reaction of other people regarding the tricotomy, with 35 patients (70%) stating they were not afraid and 15 (30%) who were.

The interference of tricotomy in the quality of life of the patients was surveyed, and 43 (86%) patients believed that tricotomy did not hinder their quality of life, while 7 (14%) believed that it did.

In terms of the repercussions of the tricotomy following hospital discharge, the intentions of the patients regarding the return to their daily activities were analyzed. All 50 (100%) patients stated that they would return to their lives normally. When their opinion was asked regarding whether the tricotomy would have any effect on their social relations, 45 (90%) said it would not, while 5 (10%) believed that it would. When asked whether the tricotomy would hinder their outings from home, 46 (92%) patients believed that they would not leave home less often and 4 (8%) thought that they would.

DISCUSSION

In patients with brain pathologies, tricotomy of the scalp hair is frequently performed in the surgical center prior to the surgery, following anesthetic induction. For some patients, tricotomy of the scalp is seen as a necessary torment that needs to be undergone in order to have a successful neurosurgery⁽¹⁾.

As such, it is observed that hair is a symbol of life and identity, and plays an important role in social communication. It can reflect the social class, gender, profession, religion, beliefs or political convictions; it indicates personal-ity, attractiveness and femininity in women⁽¹⁴⁾.

In this study, most patients (88%) believed that hair is important to physical appearance. Of the 50 patients included in the study, 31 (62%) answered that self-esteem was not reduced after the tricotomy, while 19 (31%) stated that it was. However, 26 (54%) felt less attractive, 24 (48%) felt insecure and 13 (26%) were ashamed because of the tricotomy.

In other studies, this relationship between personal appearance and self-esteem was seen to be important for the assistance in the recovery of the patients⁽¹⁵⁻¹⁶⁾.

In patients with cancer, alopecia is frequently an experience that is both traumatic and difficult to cope with, due to its influence on self-esteem. The body image of patients who had alopecia due to chemotherapy became less important when survival was at issue. There was no negative association between alopecia and body image, because

several patients reformulated their self-image, focusing not on physical appearance, but on spiritual issues, their sense of personal values and strong family bonds⁽¹⁵⁾.

Hair loss might have psychosocial implications, and can affect body image and, consequently, self-esteem. However, cultural and personal factors determine how the individuals deal with this issue⁽¹⁶⁾. There are patients with high levels of self-esteem who are satisfied with themselves; they feel no need to change things in themselves and are not preoccupied with other people's opinions, even though their body image was altered⁽¹⁷⁾.

Healthcare professionals must try to help the patient prepare for psychological and social changes due to the tricotomy of the scalp, providing teaching about its need and purpose in the pre-operative period.

A relationship between self-esteem and the receiving of this information was verified by the medical and nursing staff since, of the 32 (64%) patients who received teaching, 23 (71,9%) mentioned that their self-esteem was not reduced while 9 (28.1%) did. Of the 18 (36%) patients who mentioned not being taught about the tricotomy, 10 (55.5%) stated that their self-esteem was reduced while 9 (28.1%) said that it was not.

We observed that, regarding the 32 patients who received teaching about tricotomy, most times (26 patients) this was provided by the physician, which indicates that the nurse must prepare the patients more adequately and address the psychosocial aspects involved in the pre- and post-operative periods.

There are studies showing that one of the strategies used to deal with alopecia is the use of some type of accessory⁽¹⁸⁾. In our study we verified that this strategy was used, with 35 (70%) patients choosing a cap, a scarf, a bandanna, a wig or a hat as accessories. We can understand that this strategy indicates the intention of improving self-image, and consequently, self-esteem, being used by most (68%) participants who declared that their self-esteem was not reduced because of the procedure.

Another important fact to highlight is the relationship between post-operative recovery and personal appearance, where 30 patients (60%) mentioned that they believe that this relationship influenced their recovery.

CONCLUSION

The data obtained in this study allowed us to conclude that the most common type of tricotomy performed in patients admitted for cranial surgeries was the *in band* type.

Tricotomy was observed to affect self-esteem in 19 (38%) of the patients, and the feelings reported most frequently were those related to the loss of the sense of attractiveness, insecurity and shame.

The 21 (62%) patients who reported that the tricotomy did not affect their self-esteem were observed to use strategies to improve self-image, implying that there are consequences for self-esteem.

The influence of the tricotomy on personal appearance and the post-operative recovery was considered an important factor for most patients, showing the need for healthcare professionals to address psychosocial aspects in the pre- and post-operative periods.

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