HTechJ Health and Technology Journal (HTechJ)

Volume 02 Number 02
April 2024
p-ISSN: 2986-5662
e-ISSN: 2985-959X

# The Effect of Abdominal Massage and Fecal Elimination Exercises in Treating Constipation in Stroke Patients: Case Report

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**Abstract:**
Impaired physical mobility in stroke sufferers can cause constipation, which will cause effects such as hemorrhoids, rectal prolapse, and even increased intracranial pressure. Abdominal Massage and exercises elimination of feces elimination exercises are non-pharmacological strategies that can overcome this problem of constipation. The study aimed to determine the effect of abdominal massage therapy and exercise in the elimination of feces in overcoming constipation, which is characterized by controlling fecal output, bowel complaints, fecal consistency improved, bowel movement frequency improved, and intestinal peristalsis improved. The method used is a case study, a sample in a case study. This is a stroke patient who is constipated. Data collection uses techniques, interviews, and observations. The Constipation Analysis Scale instrument was used to assess the degree of constipation. Abdominal massage therapy and fecal elimination exercises are given once a day when you wake up for 30 minutes. The research results showed that respondents have no complaints about defecation, the stool consistency is soft, and there is increased intestinal peristalsis after being given intervention. Abdominal massage therapy and fecal elimination exercises can overcome this constipation in stroke sufferers. This intervention can be used as a possible non-pharmacological action that can be applied as a treatment to treat constipation and facilitate bowel movements instead of using laxatives. This intervention is educational and can be done anywhere without requiring medical assistance.

**Article info:**
Submitted:
17-03-2024
Revised:
17-03-2024
Accepted:
18-03-2024

**Keywords:**
abdominal massage; constipation; stroke

DOI: https://doi.org/10.53713/htechj.v2i2.153


## INTRODUCTION

A stroke is a disruption of blood circulation to the brain that can cause damage to the motor movement center in the frontal lobe, resulting in problems or limitations on the sufferer's limbs (Ferry & Khomsah, 2022). Paralysis of limbs in stroke sufferers will cause physical mobility problems. Because of interference, this physical mobility and constipation can occur due to lack of activity and weakness peristalsis in the intestine. Constipation will also trigger complications if not treated immediately. In the pudendal nerve, there will be persistent pulling so that it can occur hemorrhoids and rectal prolapse in stroke sufferers (Wicahyanti et al., 2017). Therefore, this problem must be addressed immediately so that ongoing complications do not occur.

WHO stated that the number of stroke sufferers in the world is 15 million people. Recorded 5 million people died, and 10 million of them experienced disability stroke sufferers (Pahria et al., 2021). Stroke cases in Indonesia 2018 are estimated to total 2,120,362 people based on age > 15 years with a doctor's diagnosis (Riskesdas Jatim, 2018). In the province of East Java, stroke cases were recorded in 8th place in Indonesia, with a total of 21,120 people (Riskesdas Jatim, 2018). In

Volume 02 Number 02
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stroke sufferers in the Pekuncen Village area of Pasuruan City, in 2023, there will be 20 people, 1 in 3. Some of them experience constipation.

Stroke is divided into 2 types depending on the cause of the occurrence. On strokes, Hemorrhage occurs because blood vessels burst due to increased blood pressure. When blood vessels burst, it can cause bleeding in the brain. This matter rises brain mass and causes neurological dysfunction. Because of dysfunction Neurologically, hemorrhagic stroke sufferers experience impaired physical mobility compared to non-hemorrhagic stroke sufferers, which occurs due to blood clots or embolisms in the cerebral arteries. Due to this blockage, brain cells are deprived of oxygen and nutrients, causing neurological dysfunction. One of the functions that is disrupted is the system digestion. Neurological dysfunction in the digestive system will reduce reflexes peristalsis in the intestines. So, constipation occurs because the stool dries out too much and takes a long time to be absorbed in the colon.

Constipation can be treated with pharmacological and non-pharmacological therapy. Therapy Constipation in hospitals currently relies more on pharmacological treatments when given a laxative, but long-term use of laxatives can cause side effects. Alternative treatment for constipation can currently be done with non-pharmacological therapy, namely abdominal massage and fecal elimination exercises. This therapy works directly on the abdominal wall to help stimulate intestinal peristalsis, strengthen the stomach muscles, and improve the digestive system (Yildirim et al., 2019). It has been proven in previous research that non-pharmacological Abdominal Massage therapy is effective in treating constipation (Ferry & Khomsah, 2022; Kartika Sari & Wirjatmadi, 2017; Wicahyanti et al., 2017). This study aimed to determine the effectiveness of Abdominal Massage therapy combined with fecal elimination exercises in stroke sufferers who experience constipation.

## STUDY DESIGN

This research uses a case study design. The sample in this case study is a stroke patient who experiences constipation. Data was collected by observing the patient's condition and conducting interviews to analyze whether the signs and symptoms of constipation were appropriate to the patient's condition. Then, the degree of constipation was assessed using the CAS (Constipation Analysis Scale). Abdominal Massage and fecal elimination exercises are given once daily when you wake up for 30 minutes.

## PATIENT INFORMATION

The patient is a stroke sufferer ± 67 years old. The patient experiences impaired physical mobility, so he is confined to bed/only bed rest. The patient complained of frequent difficulty defecating, defecation felt hard and strained for a long time, the feces felt stiff, and the patient's defecation frequency was only once a week. In the family health history, the patient has a history of hypertension but does not have a history of infectious diseases. Elimination pattern: the patient only defecates once a week and urinates using diapers and diapers ± 4x a day. The patient's diet consists of rice, side dishes, and soup. Eat 2 times a day, morning and evening; during the day, only eat bananas. The patient's family said that the patient did not want to consume vegetables due to restrictions on certain types of vegetables, so the patient thought that all vegetables were avoided. This patient was chosen to be a respondent because he met the requirements of the research objectives, which were supported by signs and symptoms of constipation, which would be treated with Abdominal Massage and Fecal Elimination Exercises.

Volume 02 Number 02
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## CLINICAL FINDINGS

Data analysis raises the problem of constipation, so the nursing diagnosis that can be made is constipation related to abdominal muscle weakness, characterized by defecation less than twice a week, defecation feels difficult and takes a long time, hard feces, decreased intestinal peristalsis, general weakness, straining during defecation, and distension. abdomen. After establishing a nursing diagnosis, the next step is to develop a nursing intervention, namely Constipation Management, with the hope that after being given intervention for 3 x 24 hours, fecal elimination will improve with the following criteria: increased control of fecal output, complaints of prolonged and difficult defecation will decrease, straining during defecation will decrease, distension the abdomen decreases, palpable mass in the rectal area decreases, urgency decreases, abdominal pain decreases, abdominal cramps decrease, feces consistency improves, frequency of defecation improves, intestinal peristalsis improves.

## THERAPEUTIC INTERVENTION

Nursing implementation is building a relationship of mutual trust between the patient and the nurse, explaining the goals and procedures for constipation management actions by applying abdominal massage, checking the peristaltic frequency, which was found to be 4x/minute, then giving an abdominal massage for 15 minutes, after being given an abdominal massage then monitored Again, the peristaltic frequency was 15x/minute, then taught the client not to hold back the defect, recommended eating foods that were high in fiber, recommended drinking lots of fluids if there were no contraindications, and taught rectal dilatation techniques for 15 minutes. Then, the nursing evaluation was obtained on the first day; the patient had no urge to defecate; on the second day, there was the urge to defecate, but the excretion of feces still felt difficult; on the third day, there was an urge to defecate, and the consistency of the stool was soft.

The results of this case study: On the first day, the patient was given a massage on the area of the abdomen, which was previously assessed for the degree of constipation and examination of intestinal peristalsis. After the massage, the patient is given elimination exercises and taught to defecate regularly and not resist the urge to defecate. However, intestinal peristalsis increased from 10x/minute to 15x/minute. So, the intervention was continued for the next day.

On the second day, the patient said there was an urge to defecate after being given an intervention. Therefore, patients are advised to defecate immediately. Excreting feces feels hard, and intestinal peristalsis has increased, namely 20x/minute. Patients are also educated to do exercise elimination so that abdominal massage can be more effective.

On the third day, the patient was given the same intervention. The patient said there was an urge to defecate after being given abdominal massage, intestinal peristalsis also increased, namely 24x/minute, abdominal distension I can't feel it anymore, and the feces that come out are soft and not complicated. This massage can be applied if the patient experiences constipation again. The goal is for patients not to be dependent on laxatives, which have long-term side effects.

## DISCUSSION

On the first day, the patient was given a massage on the abdomen area, which was previously assessed for the degree of constipation, and an examination of intestinal peristalsis. In the initial condition, the patient complained of difficulty when defecating, the anal area felt painful during defecation, hard stools, weak intestinal peristalsis, namely 10x/minute, palpable mass in the

Volume 02 Number 02
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area left ileum, the degree of constipation indicates moderate risk. Assess the degree of severity of constipation using the CAS questionnaire, then carry out the planned existing interventions. After the massage, the patient is given elimination exercises and taught to defecate regularly and not resist the urge to defecate. The problem still needs to be resolved, possibly because the patient is still not relaxed and still needs to completely trust the author who gave him a massage on his stomach. However, intestinal peristalsis increased from 10x/minute to 15x/minute. So, the intervention continued the next day.

On the second day, the patient said there was an urge to defecate after being given an intervention. Therefore, patients are advised to defecate immediately. Excreting feces feels hard, and intestinal peristalsis has increased, namely 20x/minute. The problem is already partially resolved, but intervention is continued to ensure whether you are still constipated the next day. Patients are also educated to do exercise elimination so that abdominal massage can be more effective. On the third day, the patient was given the same intervention. The patient said there was an urge to defecate after being given abdominal massage, intestinal peristalsis also increased, namely 24x/minute, abdominal distension I can't feel it anymore, and the feces that come out are soft and not hard. The problem was already resolved, and the intervention was discontinued. The author also educates families to do this abdominal massage for the next week. After feeling the patient, abdominal massage can be stopped if you are no longer constipated. This massage can be applied if the patient experiences constipation again. The goal is for patients not to be dependent on laxatives, which have long-term side effects.

Before intervention, building a relationship of mutual trust with a caring attitude is a good idea. Relationships of mutual trust, feelings of security and comfort, and Physical healing can be enhanced through a caring attitude. A nurse must understand the biopsychospiritual perspective to meet patient needs (Kusuma et al., 2021). According to (Utama & Nainggolan, 2022). Risk factors for stroke are age, type gender, education level, history of hypertension, blood cholesterol levels, obesity, disease heart disease, smoking habits, consuming foods high in salt, and lack of physical activity. In this case, the patient had a history of hypertension, which was a major cause of stroke. As a result of a stroke, patients experience physical limitations that support the occurrence of constipation, namely weakness of the abdominal muscles. Patients are given constipation management by providing Abdominal Massage and Elimination Exercises Fecal. According to Fikri (2022), abdominal massage can stimulate peristalsis so that feces in the colon do not take too long to be absorbed. Massage The stomach can also increase the frequency of defecation and provide a feeling of comfort to the patient.

Only abdominal massage and fetal elimination exercises are several interventions used in fields (SIKI PPNI, 2018). These interventions recommend improving fluid intake as long as there are no contraindications, practicing regular bowel movements, and increasing fiber intake. According to (Ernawati, 2019), evaluation is a final step in the nursing process, which determines the extent to which the goals of the nursing plan are achieved. Evaluation of a given action has an impact on the patient's condition. This impact leads to the success of the given action.

Based on the results of this research, according to the author, it can be stated that there is an influence on providing abdominal massage therapy and internal fecal elimination exercises in treating constipation in stroke sufferers. Abdominal massage works directly on the abdominal wall to help stimulate intestinal peristalsis, strengthen abdominal muscles, and improve the digestive system. The patient's previous condition indicates this, and some differences show success in providing therapy after being given therapy. The patient said there were no complaints about defecation, stool consistency improved, and intestinal peristalsis increased daily after administration therapy. This therapy is in line with research (Wicahyanti et al., 2017) that there is

Volume 02 Number 02
April 2024
p-ISSN: 2986-5662
e-ISSN: 2985-959X

The effect of abdominal massage therapy in reducing constipation in patients suffering from strokes.

## CONCLUSION

Abdominal massage therapy and fecal elimination exercises are effective in treating constipation in stroke sufferers. Abdominal massage works directly on the abdominal wall to help stimulate intestinal peristalsis, strengthen abdominal muscles, and smooth out the digestive system. This intervention can be used as a non-pharmacological action that may be applied to treat constipation in hospitals as a substitute for laxatives.

## REFERENCES

Achmad Ali Fikri, Syamsul Arifin, M. F. F. (2022). Efektivitas Masase Abdomen terhadap Pencegahan Konstipasi pada Pasien Stroke. *Journal of Telenursing (JOTING), 4*(1), 237–242. https://doi.org/https://doi.org/10.31539/joting.v4i1.2679

Ernawati. (2019). Evaluasi Keperawatan. *Jurnal Online Internasional & Nasional, 7*(1).

Ferry, & Khomsah, I. Y. (2022). Pengaruh Pemberian Massage Abdomen Terhadap Konstipasi Pada Pasien Stroke Non Hemoragik. *Jurnal Keperawatan Bunda Delima, 4*(2), 27–32. https://journal.bundadelima.ac.id/index.php/jkbd/article/view/57

Kusuma, E., Nastiti, A. D., Handayani, D., & Puspitasari, R. A. H. (2021). The Relationship Between Nurse Caring Behavior and Anxiety Levels Among Covid-19 Patients. *Nurse and Holistic Care, 1*(2), 82–88. https://doi.org/10.33086/nhc.v1i2.2309

Pahria, T., Fadhilla, A. N., & Sari, C. W. M. (2021). Perilaku pencegahan konstipasi pada lansia di panti sosial rehabilitasi lanjut usia. *Holistik Jurnal Kesehatan, 15*(3), 534–545. https://doi.org/10.33024/hjk.v15i3.4348

PPNI. (2018). *Standar Intervensi Keperawatan Indonesia.*

Riskesdas Jatim. (2018). *Laporan Provinsi Jawa Timur RISKESDAS 2018.* In Kementerian Kesehatan RI.

Utama, Y. A., & Nainggolan, S. S. (2022). Faktor Resiko yang Mempengaruhi Kejadian Stroke: Sebuah Tinjauan Sistematis. *Jurnal Ilmiah Universitas Batanghari Jambi, 22*(1), 549. https://doi.org/10.33087/jiubj.v22i1.1950

Wicahyanti, N., Najib, M., & Widyastutui, D. U. (2017). Penyebab Konstipasi pada Klien Stroke di Rumah Sakit Islam Jemursari Surabaya. *Jurnal Keperawatan, 10*(3), 80–85.

Yildirim, D., Can, G., & Talu, G. (2019). The Efficacy of Abdominal Massage in Managing Opioid-induced Constipation. https://www.ejoncologynursing.com/article/S1462-3889(19)30057-2/fulltext