PHYSIOTHERAPY IN POST TOTAL HYSTERECTOMY: A CASE REPORT

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Abstract

***Introduction**:* Total hysterectomy is the surgical removal of the uterus for medical reasons. From the post-medical procedure and the effects of bed rest, complications can arise. Therefore, it is necessary to provide physiotherapy measures.

***Case Presentation**:* A 44-year-old woman came for pain treatment after total hysterectomy surgery. Pain is felt at the incision site for a total hysterectomy. Pain in the lower abdomen is felt when going up and down stairs and activities, so that he cannot bend down and sit on the floor, as well as constipation and incontinence.

Management and Outcome: The interventions used Pelvic Floor Muscle Training, Static Contraction in the abdominal muscles, Active Exercise on the hip joint flexors and trunk flexors, Breathing Exercises, Massage on the large intestine with repeaters 8 times per session 3 times a day and gradually increased and education, then Incision pain is reduced, constipation and incontinence are gone, functional ability is increased, muscle strength and range of motion are increased.

***Discussion**:* After the administration of physiotherapy modalities with repetition and a gradual increase in repetition, the patient's complaints are reduced.

Jl. A. Yani, Mendungan, Pabelan, Kec. Kartasura, Sukoharjo Regency, Central Java 57169

***Conclusion**:* Complications after total hysterectomy surgery in this case can be resolved by pelvic floor muscle training, static contraction of the abdominal muscles, active exercise on the hip joint flexors and flexors trunk, breathing exercise, colon massage and education.

Keywords: Physiotherapy, Post-surgery, Total Hysterectomy.

Introduction

Total hysterectomy is surgery to remove the uterus and cervix. Removal of the uterus is carried out for medical reasons such as heavy bleeding, adenomyosis, fibroids, endometriosis, uterine prolapse, cancer, Pelvic Inflammatory Disease (PID) and placenta accreta. There are several procedures in total hysterectomy, which this patient experienced were abdominal hysterectomy and vertical incision. So that in the removal of the uterus and cervix by making a surgical incision in the abdominal area, starting from the bottom of the navel and extending to just above the pubic bone.

Complications from these medical procedures can be in the form of prolapse or descent of the supporting organs of the uterus, pain that does not go away, bladder tract disorders, constipation and damage to organ structures around the uterus[1,2,3]. Postoperative bed rest can also result in decreased functional ability of other body parts in addition to the patient's fear of moving[4].

Therefore, it is necessary to give physiotherapy measures to overcome the problems that arise in addition to preventing further complications[4].

Methode

A case report conducted to this study by exploring the effect of some interventions (PFM Training, Static contraction, Active Exercise, Breathing Exercises and Massage) in specific case of post total hysterectomy. This study had been approved by Health Sciences Faculty, Universitas Muhammadiyah Surakarta ((1299.3/C.8-III/FIK/VIII/2021).

Jl. A. Yani, Mendungan, Pabelan, Kec. Kartasura, Sukoharjo Regency, Central Java 57169

Case Presentation

A 44 year old female office worker came for the treatment of pain after total hysterectomy surgery. Pain is felt at the incision site for a total hysterectomy. The incision position is in the lower abdomen, with a vertical incision between the umbilicus and the mons pubis. Pain is felt when the area around the incision is compressed or moved. Pain is described as a 7 out of ten. Pain in the lower abdomen is felt when going up and down stairs and activities, so that he cannot bend down and sit on the floor, constipation and incontinence.

The history of the woman's illness began with frequent bleeding and abdominal pain during menstruation in the last few years. Then in mid-2020, she checked with an obstetrician at the Semarang Hospital. From the results of the ultrasound the doctor got the results of the enlargement of the uterus from a normal size, and suggested surgery to take myomas and remove the uterus. Pain in the lower abdominal area increases for going up and down stairs and activities, but will decrease when sleeping on back.

Since the age of 16 the patient received hormone treatment for 4 years until the age of 20 years. This treatment is given to overcome the problem of mammary gigantism that the patient has experienced since adolescence. The patient also had surgery to remove part of the breast in both breasts. Hormone therapy is thought to be related to the growth of myomas in the patient's uterus. The patient had diabetes mellitus and a history of high blood pressure before undergoing hysterectomy. No family members have the same disease.

On inspection, it was found that the woman had good posture, no deformity, no swelling, and there was an incision in the lower abdomen in a vertical position. Facial expressions are seen holding pain when bending the legs and bending over. On palpation there is tenderness and movement in the incision area. There is a stiff thickening of the skin tissue after the incision. Blood pressure 130/80 MmHg, respiration 22 breaths/minute.The patient has difficulty bending

over, squatting, sitting on the floor, sitting with legs crossed on a chair, going up and down stairs, and is limited to lifting weight because of the pain. For prayer she does it by sitting on a chair. For defecation, use the toilet seat. The home environment is not multi-storey while at work she uses the elevator to go up and down. Tenderness and motion score 7. Strength of hip flexors (dextra and sinistra) and trunk flexors is worth 2. Limited range of motion of the hip joint and trunk. Barthel Index (assessment of the ability of daily activities) obtained a value of 85 (mild dependent)[5]. The Sandvik test (test to assess the inability to control urination) got a score of 6 (moderate incontinence)[6]. Constipation Scoring System/ CSS (test to assessment for difficulty defecating) got a score of 19 (constipation) [7,8].

Patients diagnosed with weakness m. *rectus abdominis, m. psoas major, m. iliacus*, and pelvic floor muscles. There is pain at the surgical incision site. Decreased range of motion in trunk flexion and hip joint flexion resulting in difficulty bending over, sitting on the floor, sitting with legs crossed on a chair, going up and down stairs, and limited ability to lift weight due to pain, constipation and urinary incontinence. Inability to pray with proper position and movement.

Management and Outcome

Patients receive a physiotherapy program in the form of:

1. Pelvic floor muscle (PFM) training, consisting of 5 training sessions according to table 1.

Table1. PFM Training

Treatment Session	PFM Fast Twitch
#1	Holding for 2 s, resting for 2 s × 8 repetitions, 3 sets per day All in a supine position
#2	Holding for 2 s, resting for 2 s × 10 repetitions, 3 sets per day 1 set supine and 2 sets seated
#3	Holding for 2 s, resting for 2 s × 10 repetitions 1 set supine, 1 set seated, and 1 set standing per day
#4	Holding for 2 s, resting for 2 s × 10 repetitions, 3 sets per day 2 sets seated and 1 set standing per day
#5	Holding for 2 s, resting for 2 s × 10 repetitions 1-2 sets per day, any position[a]

2. Static contraction on the abdominal muscles

Crook lying position with both hands under the lumbar spine. The patient takes a deep breath while contracting the abdominal muscles so that they press the hand, held for a count of 8. Then exhale accompanied by relaxing the abdominal muscles, repeated 8 times.

3. Active Exercise on the hip joint flexors and trunk flexors

Active exercise at the hip flexors. In the supine lying position, the patient flexes the hip joint with the knee straight. The movement is carried out gradually until the knee touches the stomach, alternating between the right and left legs, and is repeated 8 times. And combined with holding the leg at a maximum of ROM for a count of 8 and by holding the breath.

For active exercise on the flexor trunk, crook lying position, the patient raises the head to look at the knees. Gradually until the lifting of both scapulas. The exercise is modified by holding your breath while maintaining the position for a count of 8. The exercise was repeated 8 times.

4. Breathing Exercises

Breathing exercise is done to relax by inhaling through the nose and then exhaling through the mouth. The exercise is repeated 8 times.

5. Massage on the large intestine

Patient position *supine lying*, gently massage clockwise in a circular manner. After that, efflurage was carried out in the descending intestine, followed by the transverse intestine and then the ascending intestine. Repeat the massage from start to finish, repeat 8 times. Finally, as a closing, gentle massage rotates in a clockwise direction.

After a weekly physiotherapy program and a home program, pain was reduced, constipation was reduced, incontinence was reduced, muscle strength was increased, ROM and functional ability were improved. Improvement increased during treatment. These improvements can be seen in table.2 and table.3.

Table.2 Evaluation Results of Sandvik Test, Barthel Index, CSS, MMT and ROM

Sanvick Test	*Score*
T1	6 (Moderate Incontinence)
T4	0 (Normal)
Barthel Index	*Score*
T1	85 (Lightly dependent)
T4	95 (Independent)
CSS	Score
T1	19 (Constipation)

T4	0 (Not Constipated)
MMT	Results
T1	*Hip Flexor* : 2, *Flexor Trunk* : 2
T4	*Hip Flexor* : 4, *Flexor Trunk* : 4
ROM	Results
T1	*Hip Joint* (S) : 10◦-0◦-15◦ *Trunk* (S) : 0◦-0◦-10◦
T4	*Hip Joint* (S) : 10◦-0◦-110◦ *Trunk* (S) : 0◦-0◦-45◦

Table. 3 Results of Evaluation of Pain Degree (NRS)

Painful	Pain Degree			
	T1	T2	T3	T4
Shut Up	0	0	0	0
Press	7	5	3	1
motion	7	6	4	3

Based on the progress obtained every week, the therapy program is given until the fourth week. Patients are also given education for follow-up programs at home.

Discussion

With repeated pelvic floor muscle training and with a gradual increase in repetition, it can increase the strength of the pelvic floor muscles, so as to prevent and overcome incontinence[9]. This is in accordance with previous research[9,10,11]. Active motion exercises, massage and breathing exercises also provide the benefits of reducing pain, urinary incontinence, reducing anxiety and increasing activity ability[12]. For the program at home, it is recommended to practice holding back urination, repeating exercises and massage movements. Patients are prohibited from holding/delaying defecation. And it is recommended to drink more water and consume vegetables and fruit[13].

Conclusion

Complications after total hysterectomy surgery are a presence of pain in the former surgical incision in the lower abdomen, decreased muscle strength, joint range of motion and functional ability, constipation and urinary incontinence in this case can be resolved by pelvic floor muscle training, static contraction of the abdominal muscles, active exercise on the hip joint flexors and flexors trunk, breathing exercise, colon massage and education.

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