

A Case Report of Effective Physical Therapy for Post-Operative Non-descent Vaginal Hysterectomy Patient

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ABSTRACT

Menorrhagia is a prolonged and excessively serious menstrual bleeding (Walker et al., 2015). It is not due to any underlying disease, the likely reasons include hormone imbalance, ovary impairments, uterine fibroids, intra uterine devices, medications etc. Vaginal hysterectomy is a procedure in which the uterus is surgically removed via the vagina. Non descent vaginal hysterectomy (NVDH) is preferred for uterine removal as it is easy and time efficient. Immediate care with physiotherapy is recommended in post-operative patients for early recovery. This 42-year-old woman was mainly concerned with per vaginal bleeding for 2 months. Also complaints included pain in lower abdomen and lower limb tingling and numbness. She was unable to perform her daily activities. Menorrhagia was confirmed with investigations like sonography and haematological investigations. Patient was treated with non-descent vaginal hysterectomy and post-surgical physical therapy. Timely physiotherapy rehabilitation plan in post-surgical phase helps in early functional restoration.

KEY WORDS: PHYSICAL THERAPY REHABILITATION, NON-DESCENT VAGINAL HYSTERECTOMY, MENORRHAGIA, NPRS SCORE.

INTRODUCTION

Professor William Cullen (in 1700s) was the first who coined the term Menorrhagia. At regular intervals of the menstrual cycle, menorrhagia is a prolonged and excessively serious menstrual bleeding (Walker et al., 2015). It is not due to any underlying disease, the likely reasons include hormone imbalance, ovary impairments, uterine fibroids, intrauterine devices, medications etc. Signs and symptoms of menorrhagia

include bleeding for more than a week, blood clots greater than the size of a quarter, daily tasks limited by heavy menstruation, effects of anaemia like weakness, fatigue or breathlessness (Hapangama et al., 2016). Lack of appropriate treatment may lead to chronic, serious and life-threatening condition. Treatment options are medications and gynaecological surgeries. Hysterectomy is one of the common and fundamental surgical procedures available. It is the careful removal of the uterus and can be completed by vaginal or abdominal route. In vaginal hysterectomy, the surgical removal of the uterus via the vagina is performed. In the event that the uterus isn't substantially swollen and regardless of whether the reason for the surgical procedure wasn't because of disease, a vaginal approach could be utilized as in non descent vaginal hysterectomy (NDVH).

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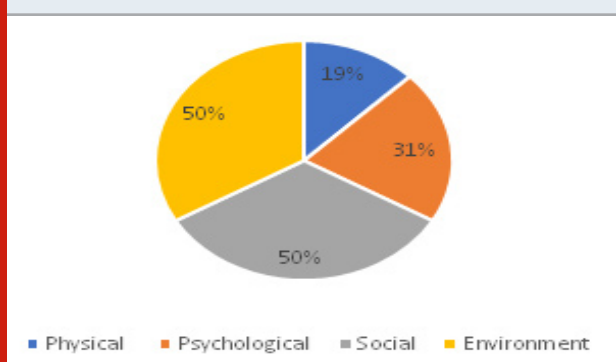
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It has been reported that physiotherapy is useful in post-surgery treatment of patients (Odunaiya et al., 2013). Therapeutic strategies involve proper positioning of the patients, pelvic floor exercises, abdominal exercises, encouraging mobilizing by walking and stair climbing etc. Physiotherapy is also beneficial in preventing and treating post- surgical complications like infections of the chest, DVT, wound lesions, urinary incontinence (Reeve et al., 2019). In this case report, the patient experienced bleeding (pre vaginal) from last 2 months and lower abdominal and lower limb pain with tingling and numbness. The initial investigation of the patient was at her home town and was referred to Acharya Vinoba Bhave Rural Hospital, Sawangi (Meghe) Wardha for definitive treatment. Subsequently, she was treated under the physiotherapy department with a proper rehabilitation protocol.

Patient Information: A 42-year-old female patient, who is a housewife and hailing from Godhani town, started experiencing menorrhagia during her monthly menstrual cycle. This continued for one month and was accompanied with lower abdominal and lower limb pain which was gradually progressive. After initial investigation in her home town, the patient and her mother was advised to go to Acharya Vinoba Bhave Rural Hospital (AVBRH) Sawangi Meghe Wardha by the physician. She visited the Obstetrics and Gynaecology department on date 26/01/20 with a complaint of bleeding (pre vaginal) and lower abdominal and lower limb pain which was gradually progressive in nature. The bleeding was excessive and the lower limb pain was associated with tingling and numbness.

Figure 1: Pre - Physiotherapy Who Qol-berf

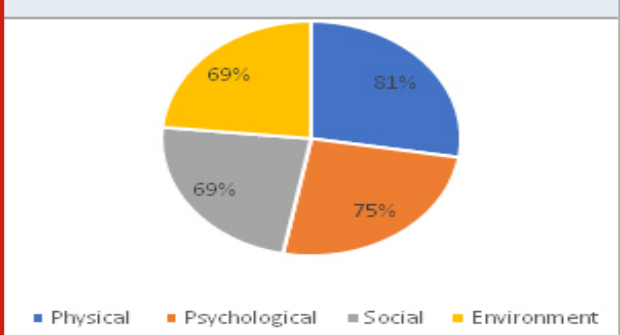


| Timeline | Date |
|----------------------------------|----------|
| Diagnosed with Menorrhagia | 26/01/20 |
| Non descent Vaginal Hysterectomy | 28/01/20 |
| Physiotherapy Rehabilitation | 30/01/20 |
| Discharge | 15/02/20 |

The consulted gynaecologist advised for sonography and laboratory tests which was carried out. Ultrasonography interpreted subserosal and intramural fibroids. Laboratory investigations revealed Hb 11gm/dl, WBC count 7300/

mm³, RBC count 4.97/uL, Platelet Count 311000/uL and was diagnosed with menorrhagia. Further on 28/01/20 patient underwent non descent vaginal hysterectomy (NDVH). Post operation, the patient was treated with antibiotics. Physiotherapy consultation was given after two days post- surgery that is 30/01/20. The patient had chief complaints of bilateral lower limb pain on the posterior aspect of the thigh and on the entire leg accompanied with numbness and tingling in the lower extremity, which the patient described as dull aching with an intensity of 7/10 on NPRS. The pain aggravates while doing work and at night and relieves at rest. Prior to commencing the physiotherapy intervention, the patient was asked to fill the WHOQOL-BREF questionnaire. The score calculated is represented in Dig.1.

Figure 2: Post 15 Days Of Physiotherapy Who Qol-berf



Clinical Findings: Patient was examined in long sitting position with both shoulder at same level, hip externally rotated, knees extended and ankles plantarflexed. On Physical examination vital signs including temperature were normal, pulse rate - 78 b/m, respiratory rate - 24 b/m, blood pressure- 110/80 mmHg. Repeat blood work revealed haemoglobin 11.2 g/dL, TLC- 7300/ml, Platelets- 311000/μL. Other clinical finding revealed presence of white discharge.

Physiotherapy Intervention: The patient received physiotherapy for 15 days on regular basis in the gynaecology in-patient ward by a skilled community physiotherapist. Initially, the patient was repeatedly helped to be well positioned and fully supported when sitting up in bed or in a chair with a pillow in the lumbar curve being crucial. For the patient safety and comfort, getting in and out of the bed was monitored at first and positions for sleeping and resting was reviewed daily. The patient was visited by the physiotherapist twice daily with a view to ensuring that the chest is clear, that circulatory and other movements are being performed regularly and that the patient is comfortable and as independent as possible. Further progressions like pelvic floor exercises, abdominal exercises like pelvic tilting and knee rolling combined with static abdominal contractions in crook lying was given to ease backache, stiffness and flatulence. The patient was kept mobilizing by encouraging her to w

alk around the bed and helped to the toilet or washroom. By the third or fourth day, repeated short walks and stair

climbing was given which is very beneficial. Frequent rest periods are given to the patient by giving comfortable resting positions. Post-operative complications like chest infections was treated with antibiotics, huffing, proper positioning and support and humidification. DVT was treated by giving anticoagulant therapy and antiembolic stockings was advised, along with this deep breathing exercise and leg exercises was encouraged to aid circulation. Patient was advised to avoid standing and lifting anything more than 1 kg for four weeks. Continuation of hospital exercises with gradual increase in the number of repetitions was instructed and after two to three weeks regular short walks by progressively increasing the distance was also informed. After four to six weeks driving may be considered and at about six weeks the patient was told to return for follow up appointment.

Follow up and outcome: The patient was able to perform all activities of daily living and was not having abdominal and lower limb pain at the end of the session. She achieved a high level of independency, was well motivated and was willing to do physiotherapy. She visited the department frequently and was introduced to a home exercise program.

RESULTS

The NPRS score pre surgery was 7/10. On initiation of physiotherapy treatment two days after and post 15 days with physiotherapy, improvements in NPRS was seen 2/10. Improvements are observed in the patient by relief of abdominal pain and lower limb pain. The WHOQOL-BREF questionnaire was administered and the post score is represented in Dig.2. Positive changes in the domains of physical, psychological, social and environment were ascertained. The improvements are observed gradually, as the patient progressed with exercise and physiotherapy treatment.

DISCUSSION

The most commonly performed major surgical operation in gynaecology is hysterectomy. It is an effective treatment for heavy menstrual bleeding however it is associated with physical and emotional complications as well as social and economic costs (van et al., 2016; Urbachet al., 2006). A review of incidence shows that physiotherapy management carried out soon as possible following gynaecological operation enhances the patient's quality of life (Dronkers et al., 2016; Phansopkaret al., 2020; Schiemanck et al., 2006;). In these patients, the preventive aspect of physiotherapy needs to be promoted more. Post-operative gynaecological patients have been deprived of the management of physiotherapy and a large number of physiotherapists tend to prophylactically benefit patients with breathing exercises if followed. In our case report, patient confirmed abdominal pain and lower limb pain with insidious onset.

The involvement of pain hampered lower limb movements and activities of daily living. Following

surgery and antibiotics, with reduced pain, we could involve the patient actively in rehabilitation. The major goal of the treatment must be fully understood by the patient for successful recovery. Initiation of early physiotherapy post-operatively soon led to improvement in the patient's activities of daily living (Baiset al., 2020; Waneet al., 2020;). In the aspect of rehabilitation, we intended for more of the patient's involvement in order to achieve improvement in her pain free and voluntary action, which we succeeded in within 15 days by improving her activities of daily living. An adherence to the rehabilitation protocol was intended by educating the patient to carry out the exercises at home and a written protocol was provided. This case report intended to highlight the significance of prompt diagnosis, treatment and most importantly rehabilitation to get the patient back to her functional state.

A number of studies on this aspect are reflected in global studies (Murray et al., 2020; Murray et al., 2019; Voset al., 2020; Wanget al., 2020; Lozano et al., 2020). Some of the related studies were reported by (Gadget et al., 2018; Marfaniet al., 2019; Patwaet al., 2019 and Jindal et al., 2020). (Ladkeet al., 2020) reported on complication of post-laparoscopic morcellation. (Gawri et al., 2019) conducted a comparative study of laparoscopic assisted vaginal hysterectomy vs non-descent vaginal hysterectomy (Rathod et al., 2016). Other related studies were reviewed (Yadav et al., 2016).

CONCLUSION

This case report revealed that physiotherapy intervention performed after hysterectomy proves to be very beneficial and can lead to enhancement in functional goals of the patient. Scheduled exercise program benefits the patient and also minimizes the complications after surgery.

List of Abbreviation

NDVH- Non descent vaginal hysterectomy

Hgb- Hemoglobin

WBC- White blood cells

RBC- Red blood cells

NPRS- Numerical Pain Rating Scale

WHOQOL-BREF – World Health Organization Quality of Life Instruments

TLC- Total Leucocyte Count

DVT- Deep Vein Thrombosis

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Informed Consent: Proper Consent was taken was taken from patient for writing case report.

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REFERENCES

- Bais, A., Bawiskar, D., Naqvi, W.M. and Sahu, A., 2020. A case study on the impact of physiotherapy on unilateral foot drop after lumbar fusion and discectomy. *Medical Science*, 24(103), pp.1773-1779.
- Darware, M., Ghordadekar, D., Dhole, R. and Noman, O., 2020. A Case Report On Physiotherapy Rehabilitation Leading To Early Recovery After Hysterectomy And Prevention Of Postoperative Complications. *European Journal of Molecular & Clinical Medicine*, 7(11), pp.3304-3311.
- Dronkers, J., Witteman, B. and van Meeteren, N., 2016. Surgery and functional mobility: doing the right thing at the right time.
- Hapangama, D.K. and Bulmer, J.N., 2016. Pathophysiology of heavy menstrual bleeding. *Women's Health*, 12(1), pp.3-13.
- Jindal, R. and Swarnkar, M., 2020. Outcomes are Local: A Cross Sectional Patient Specific Study of Risk Factors for Surgical Site Infections in Major Abdominal Surgeries. *Journal of Krishna Institute of Medical Sciences University*, 9, pp.43-50.
- Karlsson, B., Granberg, S., Hellberg, P. and Wikland, M., 1994. Comparative study of transvaginal sonography and hysteroscopy for the detection of pathologic endometrial lesions in women with postmenopausal bleeding. *Journal of ultrasound in medicine*, 13(10), pp.757-762.
- Latchoumi, T.P., Ezhilarasi, T.P. and Balamurugan, K., 2019. Bio-inspired weighed quantum particle swarm optimization and smooth support vector machine ensembles for identification of abnormalities in medical data. *SN Applied Sciences*, 1(10), pp.1-10.
- Ladke, A.B., Palaskar, P.A. and Bhivsane, V.R., 2020. Parasitic Fibroid: Complication of Post-Laparoscopic Morcellation. *The Journal of Obstetrics and Gynecology of India*, pp.1-3.
- Lozano, R., Fullman, N., Mumford, J.E., Knight, M., Barthelemy, C.M., Abbafati, C., Abbastabar, H., Abd-Allah, F., Abdollahi, M., Abedi, A. and Abolhassani, H., 2020. Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), pp.1250-1284.
- Marfani, G., Phatak, S.V., Madurwar, K.A. and Samad, S., 2019. Role of sonoelastography in diagnosing endometrial lesions: Our initial experience. *Journal of DattaMeghe Institute of Medical Sciences University*, 14(1), p.31.
- Murray, C.J., Abbafati, C., Abbas, K.M., Abbasi, M., Abbasi-Kangevari, M., Abd-Allah, F., Abdollahi, M., Abedi, P., Abedi, A., Abolhassani, H. and Aboyans, V., 2020. Five insights from the global burden of disease study 2019. *The Lancet*, 396(10258), pp.1135-1159.
- Murray, C.J., Aravkin, A.Y., Zheng, P., Abbafati, C., Abbas, K.M., Abbasi-Kangevari, M., Abd-Allah, F., Abdelalim, A., Abdollahi, M., Abdollahpour, I. and Abegaz, K.H., 2020. Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), pp.1223-1249.
- Odunaiya, N.A., Ilesanmi, T., Fawole, A.O. and Oguntibeju, O.O., 2013. Attitude and practices of obstetricians and gynecologists towards involvement of physiotherapists in management of obstetric and gynecologic conditions. *International journal of women's health*, 5, p.109.
- Patwa, P., Phatak, S., Pattabiraman, S. and Marfani, G., 2019. Ultrasound and color doppler features of transitional cell carcinoma of the endometrium with pathological correlation. *Journal of DattaMeghe Institute of Medical Sciences University*, 14(4), p.429.
- Phansopkar, P., 2020. Priyatikhile, Radhika Sawal, Prasad dhage, DevyaniPurushe, Waqar M. Naqvi. Early physiotherapy rehabilitation approach enhances recovery in rare acute tibial osteomyelitis post-operative in a 9 year old child. *Medical Science*, 24(104), pp.2482-2486.
- Rathod, A.D., Chavan, R.P., Pajai, S.P., Bhagat, V. and Thool, P., 2016. Gynecological problems of adolescent girls attending outpatient department at tertiary care center with evaluation of cases of puberty menorrhagia requiring hospitalization. *The Journal of Obstetrics and Gynecology of India*, 66(1), pp.400-406.
- Reeve, J., Anderson, L., Raslan, Y., Grieve, C., Ford, J. and Wilson, L., 2019. The physiotherapy management of patients undergoing abdominal surgery: A survey of current practice. *New Zealand Journal of Physiotherapy*, 47(2).
- Schiemanck, S.K., Kwakkel, G., Post, M.W., Kappelle, L.J. and Prevo, A.J., 2006. Predicting long-term independency in activities of daily living after middle cerebral artery stroke: does information from MRI have added predictive value compared with clinical information?. *Stroke*, 37(4), pp.1050-1054.
- Urbach, D.R., Harnish, J.L., McIlroy, J.H., Streiner, D.L. 2006. A measure of quality of life after abdominal surgery. *Qual Life Res Int J Qual Life Asp Treat Care Rehabil*, 15(6):1053-61.
- Van der Meij, E. and Emanuel, M.H., 2016. Hysterectomy for heavy menstrual bleeding. *Women's Health*, 12(1), pp.63-69.
- Vos, T., Lim, S.S., Abbafati, C., Abbas, K.M., Abbasi, M., Abbasifard, M., Abbasi-Kangevari, M., Abbastabar,

- H., Abd-Allah, F., Abdelalim, A. and Abdollahi, M., 2020. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), pp.1204-1222.
- Walker, M.H, Coffey, W., Borger, J., 2020. Menorrhagia. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing.
- Wane, M., Naqvi, W.M., Vaidya, L. and Kumar, K., 2020. Kinesiophobia in a Patient With Postoperative Midshaft Fracture: A Case Report of Its Impact on Rehabilitation in a 16-Year-Old Girl. *Cureus*, 12(11).
- Wang, H., Abbas, K.M., Abbasifard, M., Abbasi-Kangevari, M., Abbastabar, H., Abd-Allah, F., Abdelalim, A., Abolhassani, H., Abreu, L.G., Abrigo, M.R. and Abushouk, A.I., 2020. Global age-sex-specific fertility, mortality, healthy life expectancy (HALE), and population estimates in 204 countries and territories, 1950–2019: a comprehensive demographic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), pp.1160-1203.
- Yadav, M., Thombare, N., Naqvi, W.M. and Bele, A.W., 2020. Impact of Physiotherapy Rehabilitation Program on Post-Operative Stiffness of Supraspinatus Tendinitis. *Journal of Evolution of Medical and Dental Sciences*, 9(33), pp.2403-2406.