International Journal of Obstetrics and Gynaecology Research (IJOGR)
Vol. 5 (2018) No.2, pp. 626-631
http://www.ijogr.com/

Lower Limb Monoparesis Secondary to Impacted Pedunculated Fibroid: A Case Report

[1*]Jombo S E, [1]Ani V C1, [2]Ozigbo C E

[1]Department of Obstetrics and Gynaecology, Save a Life Mission Hospital, Port Harcourt

[2]General Outpatient Unit, Save a Life Mission Hospital, Port Harcourt
Corresponding author: Sunday Emmanuel Jombo

Email: jombosunday@yahoo.com

Abstract

Isolated monoparesis of acute onset could be a pointer to an insult on the central nervous system; however it has not been associated with uterine fibroid. We report a 36- year -old Para 0 plus 3 woman who presented with a slowly progressive lower abdominal swelling, heavy menstrual bleeding both of 6 years duration and 3 weeks onset of intermittent inability to use the right lower limb associated with numbness, tingling sensation, pain and inability to completely extend the knee joint which became worse four days prior to presentation and was offered clutches as she could no longer bear weight. Abdominopelvic Ultrasound scan showed multiple uterine fibroids with one huge pedunculated fibroid that measured 30x15x20cm on the right lumbar region abutting on the vertebrae with bilateral hydronephrosis. She was optimized with blood transfusion and subsequently had open abdominal myomectomy. An impacted pedunculated fibroid measuring 31cmx26cm and weighing 1.5kg was removed. Patient had general anaesthesia but woke up with excitement 12 hours later observing complete resolution of symptoms. This shows a very rare manifestation of uterine fibroid and justifies the need for pelvic evaluation with ultrasonography for pelvic tumor in case of lower limb neuropathy in women.

Keywords

Monoparesis; Uterine Fibroid; Myomectomy; Pelvic Ultrasonography

International Journal of Obstetrics and Gynaecology Research (IJOGR)
Vol. 5 (2018) No.2, pp. 626-631
http://www.ijogr.com/

I. Introduction

Leiomyomata commonly termed uterine fibroids are the commonest pelvic tumour in women of reproductive age group.[1, 2] It is a benign monoclonal tumour of the smooth muscle cells of the uterus. [1,3] The cause of uterine fibroid is not fully understood, but monoclonal studies have shown that each tumour is unicellular in origin and about 40% has non random and tumour specific chromosomal abnormality (involving chromosomes- 6,7,12 and 14) that affects the fibroid growth rate.[4] Abnormality of chromosome 12[t (12; 14)] and 7(del.7) are associated with large and small fibroid growth respectively.[4] Ethnic and genetic predisposition have been noted among women with positive family history and Afro-Caribbean origin. [1-3,5] Effects of steroid hormone on fibroid especially estrogen and progesterone has been implicated as it is rare in pre–adolescent girls, peaks during the reproductive age and regresses during the post menopausal period. [4, 5]

Although uterine fibroid is not a life-threatening condition, it can cause increased morbidity and affect quality of life of women. [1,7] It is asymptomatic in about 50% of cases, however when symptomatic it usually presents with lower abdominal swelling, menstrual irregularity and pressure symptoms such as constipation and urinary symptoms but very rarely neuropathy.[1,2,5-7] The size, location and number of the fibroid determine greatly the symptomatology. [2,6] A case of sciatica secondary to fibroid has been reported by Badack, 1999.[3] The treatment options include expectant management, myomectomy for those desirous of pregnancy and hysterectomy which is the definitive (curative) treatment for women who have completed their family size. [1,2,5-7] Other methods of treatments includes medical treatment, highly focused ultrasound myolysis, uterine artery ligation / embolization. [1]

Monoparesis is the presence of neurological deficits of one limb manifesting as decreased voluntary motor functions, thus a reduction in the power exerted by one or more muscles. Normal motor function involves an integrated muscle activity that is modulated by the activities of the cerebral cortex, basal ganglia, cerebellum, red nucleus and the spinal cord. [8]

Upper motor lesions will manifest as weakness of the extensor and abductors of the upper limbs with flexors of the lower limbs. Manifestations of the lower motor neuron lesions will depend largely on the site of affectation which could be at the anterior horn cells, nerve root, limb plexuses, the peripheral nerve itself and at the neuromuscular junction. [8]

International Journal of Obstetrics and Gynaecology Research (IJOGR)
Vol. 5 (2018) No.2, pp. 626-631
http://www.ijogr.com/

II. Case Report

A 36 year- old Para 0 plus 3 woman who presented with slowly progressive lower abdominal swelling, heavy menstrual bleeding of 6 years duration and 3 weeks onset of intermittent inability to use the right lower limb associated with numbness, tingling sensation, pain and inability to completely extend the knee joint which became worse four days prior to presentation and was offered clutches as she could no longer bear weight. She is not a known hypertensive and diabetic patient.

On examination she was pale, anicteric, not ill looking but anxious walking with clutches on the right side, with a flexed right knee. Her pulse rate was 80 beats / minutes, blood pressure 120/80 mmHg. Her abdomen was moving with respiration. There was palpable abdomino-pelvic mass that was hard, multi-nodular, non-tender, and was of about 34 weeks size. There was another huge mass on the right lumbar region to the right iliac fossa that was hard, non-tender and immobile. Speculum examination showed normal vaginal and apparently healthy looking cervix, no palpable adnexal masses and the right iliac fossa mass did not move on cervical displacement. She was conscious, well oriented in time place and person. No neck stiffness, left lower limb and the upper limbs were normal while the right lower limb showed hyporeflexia, absent sensation and reduced power of 3. There was pain on extension of the knee joint.

Abdomino-pelvic ultrasound showed multiple uterine fibroids with a huge pedunculated one on the right lumbar region very close to the vertebral column measuring 20x30x15cm with bilateral hydronephrosis. Full Blood Count showed Haemoglobin concentration=7g/dl, other parameters and futher tests such as urinalysis, fasting blood sugar, serum electrolytes, urea and creatinine were within normal limits.

She was counseled on her condition and on the need for blood transfusion and myomectomy. She had three units of whole blood transfused pre-operatively and had myomectomy done under general anaesthesia. Intra-operative findings were multiple uterine fibroids with a huge impacted pedunculated fibroid connect to the posterior-lateral wall of the uterus with a stalk which was double clamped and cut to exteriorize the uterus. Then it was gently mobilized and delivered with no extra vascular or extra tissue attachment. It measures 31x26cm and weighs 1.5kg. Immediate post operative period was satisfactory. She woke up 12 hours later with excitement that she can now use her leg with complete resolution of the right lower limb symptoms. She was discharged five days later and walked home freely. The histopathological examination of the masses confirmed lieomyoma with no evidence of malignancy.

International Journal of Obstetrics and Gynaecology Research (IJOGR)
Vol. 5 (2018) No.2, pp. 626-631
http://www.ijogr.com/

III. Discussion

Monoparesis of the lower limb could be a pointer to lesion of the nervous systems, but its relation to uterine fibroid has not been reported. Uterine fibroid is asymptomatic in about 50% of cases and when symptomatic usually presents with abdominal swellings, menstrual disorders and pressure symptoms. [1,2,5-7] The pressure symptoms are variable most notably are the pressure effects on the bladder and the rectus. Anteriorly on the bladder it causes urinary frequency, urinary retention while posteriorly on the rectum it causes constipation. [1,2,9] It may cause low back and leg pains on affectation of the pelvic nerves. Sciatica has been reported as a compression on the sciatic nerve. [3] Other rare manifestations of uterine fibroid include polycythaemia, thrombocythaemia and very rarely leiomyosarcoma.[1,9] Others have reported cases of chronic uterine inversion, urinary retention, utero-vaginal prolapse from submucous fibroid.[5,9-11] Monoparesis resulting from fibroid will result from compression effect of the fibroid on the pelvic nerves. Monoparesis could be a pointer to neurological deficit involving the central nervous system and the peripheral systems. At the central nervous system level it could result from stroke, contra-lateral anterior cerebral artery infarctions, and lateral medullary infarctions especially when of sudden onset. This is not the case in this patient who is not a known hypertensive patient. At the lower motor neuron level this depends largely on the site of affectation which could be at the anterior horn cells, nerve root, limb plexuses, the peripheral nerve itself and at the neuromuscular junction. [8] The lower limb is innervated by the lumbo-sacral plexuses. Lumbo-sacral plexopathy can be caused by metastatic infiltration by pelvic tumours, neurofibroma, nerve sheath tumour, tuberculous infection and diabetic neuritis (Bruns Garhand Syndrome).[8] Compressive effect of pelvic mass for example fibroid could be a good differential, as it is the case with this patient.

Monoparesis resulting from fibroid will result from compression effect of the fibroid on the pelvic nerves. Monoparesis could be a pointer to neurological deficit involving the central nervous system and the peripheral systems. At the central nervous system level it could result from stroke, contra-lateral anterior cerebral artery infarctions, and lateral medullary infarctions especially when of sudden onset. This is not the case in this patient who is not a known hypertensive patient. At the lower motor neuron level, this depends largely on the site of affectation which could be at the anterior horn cells, nerve root, limb plexuses, the peripheral nerve itself and at the neuromuscular junction. [8] The lower limb is innervated by the lumbo-sacral plexuses. Lumbo-sacral plexopathy can be caused by metastatic infiltration by pelvic tumours, neurofibroma, nerve sheath tumour, tuberculous infection and diabetic neuritis (Bruns Garhand Syndrome). [8] Compressive effect of pelvic mass for example fibroid could

International Journal of Obstetrics and Gynaecology Research (IJOGR)
Vol. 5 (2018) No.2, pp. 626-631
http://www.ijogr.com/

be a good differential, as it is the case with this patient. Injury on the nerve could be of three neurapraxia, axonotmesis and neurotmesis. Axonotmesis involves physical disruption of the axon with separation from the neuronal cell body; recovery depends on the regrowth of the axons. In neurotmesis there is complete severance of the nerve trunk and recovery is bad, while neurapraxia involves interruption without disruption of the axon classical of compression effect and has good prognoses. There is always complete spontaneous recovery as found in this index patient.

IV. CONCLUSION

Monoparesis is a pointer to nervous system insult especially when of sudden onset; compression of the pelvic nerves by pelvic tumours could be a good differential in women of reproductive age. Thus there is the need for pelvic evaluation in such patient.

forms based on the degree of injury, physical and functional integrity of the nerve trunk;

AUTHOR DISCLOSURE STATEMENT

All the authors contributed to the clinical case management and writing of this report
We declare no conflict of interest
Consent was obtained from the patient and her partner.

V. References

[1]. Okogbo F O, Ezechi OC, Loto OM, Ezeobi PM. Uterine leiomyomata in South-Western Nigeria: a clinical study of presentation and management outcomes. African Health Sciences. 2011; 11(2):271-278.

[2]. Ezeama CO, Ikechebelu JI, Obiechina NJ, Ezeama NN. Clinical presentation of uterine fibroid in Nnewi-Nigeria: A -5-year review. Annals of medical and health sciences research. 2012; 2(2):114-118.

[3]. Badack MP, Cole JC, Nagler W. Sciatic Neuropathy secondary to uterine fibroid: a case report. American journal of physical medicine and rehabilitation. 1999: 78(2): 157-9.

[4]. Medikare V, Kandukari LR et al. The genetic bases of uterine fibroids; A review. Journal of Reproduction and infertility.2011:12(3); 181-191.

[5]. Eigbefoh JO, Okogbenin SA, Omorogbe FA, Mabayoje PS. Chronic uterine inversion secondary to submucous uterine fibroid- a case report. Nigerian journal of clinical practice.2009:12(1); 106-7.

[6]. Wen-Hsiang Su, wen-Ling Lee, Ming-Huei Cheng, Ming-Shyen Yeu, Kuan-Chong Chao, Peng-Hui Wang. Typical and atypical clinical presentation of uterine myomas. Journal of Chinese medical association.2012; (75) 487-493.

[7]. Gopta S, Jose J, Manyonda I. Clinical presentations of fibroids. Best Pract. Res cli obstet and gynaecol, 2008: 22(4); 615-26.

[8]. Kumar S, kaul S. approach to a patient with hemiplegia / monoplegia . Neurology.pp 141-4.

[9]. Chawla CD, Chaudhary MS, Joneja Anjali B. Fibroid an unusual presentation.Medical Journal, Armed Forces India. 1995; July 51(3):218-19. Puplished online, 2017.

[10]. Eigbefoh JO, Okogbenin SA, Okogbo FO, Eifediyi RA, Omorogbe FA, Isabu P.prolapse submucous uterine fibroid polyps associated with urinary retention – a case report. Sahel journal of medicine, 2009; 12(3):132-134.

[11]. Aniebue UU, Nwankwo TO. Complete uterovaginal prolapse in a woman with prolapsed submucous fibroid. Annals of medical and health sciences research. 2015; 5(1)83-85.

.