CEOG Clinical and Experimental Obstetrics & Gynecology

Case Report

Ulcus cruris caused by a giant pelvic mass: A case report

P.C. Goksedef[1], S. Gökce[1], D. Herkiloglu[1,*],S. Ermin[2], M. Ekmez[2]

[1]*Gynaecology and Obstetrics Department, Istanbul Yeni Yüzyıl University Gaziosmanpasa Hospital, Istanbul (Turkey)*
[2]*Gynaecology and Obstetrics Department, Haseki Training and Research Hospital, Istanbul (Turkey)*

Summary

Background: The cause of most leg ulcers is vascular insufficiency. The most common are arterial and venous leg ulcers. *Case Summary*: We report a large therapy-resistant ulcer present for a year on the right leg of a 42-year-old woman who also had a large uterine myoma. In this case, we suspected that the uterine myoma was compressing the right common iliac vein and caused leg ulcer. It regressed approximately three months after a myomectomy, and no further treatment was required. *Conclusion*: In individuals with insufficient collateral vessels, a large uterine myoma can be the cause of venous insufficiency in the leg when it compresses the pelvic vessels enough to disrupt circulation.

Key words: Giant mass; Myomectomy; Ulcus cruris; Leg ulcers.

Introduction

Leg ulcers are a common problem. Although they can result from a multitude of causes, venous insufficiency is the leading cause, accounting for 80%–90% of cases with arterial ulcers comprising 10%–15%. Other common causes are vasculitis and peripheral neuropathy as well as lymphatic, hematologic, myeloproliferative, metabolic and neoplastic disorders [1-3]. When large uterine myoma compress the main pelvic veins, disturbing the circulation, they may cause venous insufficiency. This is particularly likely in individuals with insufficient perforating or collateral vessels. Our patient, who was 42 years old, had a right leg ulcer which regressed approximately 3 months after myomectomy without any additional treatment. This case of ulcus cruris did not respond to conservative treatment modalities and is thought to be due to compression from the giant pelvic mass.

Case Presentation

Chief complaints

A 42-year-old gravida zero woman presented with the following complaint: heavy and excessive menstrual bleeding for 2 years and a treatment resistant right leg ulcer.

History of present illness

The patient reported the symptom having lasted for 2 years.

History of past illness

Past medical history was significant for anaemia and menorrhagia.

Physical examination

Abdominal examination showed large, solid, and mobile masses in the suprapubic area. A leg ulcer was found on the surface of the right leg, measuring 11 cm × 7 cm (medial surface). It was surrounded by brownish pigmented skin, which the patient reported had been present for 1 year (Figure 1).

Figure 1. — Ulcus cruris as viewed on the operation table.

Imaging examination

Abdominal ultrasound showed normal ovaries and a 20-cm diameter mass localized in the anterior of the uterus. The ultrasound pattern suggested the presence of a uterine myoma that was compressing proximal pelvic organs. Records of a previous magnetic resonance imaging examination from the last year showed a markedly enlarged and lobular uterus, measuring 24.5 cm × 15.2 cm ×12 cm, containing intramural and pedinculated fibroids, the largest measuring 23 cm × 20 cm ×15 cm. The bowel, vascular, and urinary systems were being compressed by these masses.

Laboratory examination

Complete blood count revealed a haemoglobin level of 8.7 g/dL, haematocrit of 26.7%, platelet concentration of 280,000/mL, and mean corpuscular volume of 60 fL.

Clin. Exp. Obstet. Gynecol. - ISSN: 0390-6663
XLVII, n. 3, 2020
doi: 10.31083/j.ceog.2020.03.5345

Figure 2. — A large uterine leiomyoma being removed during the operation.

Figure 3. — The patient's ulcus cruris at postoperative week 1.

Final Diagnosis

The final diagnoses of this patient were Ulcus cruris and large uterine myoma.

Treatment

After 1 mo of iron supplementation, the patient's haemoglobin level had increased to 10.5 g/dL. Compression stocking and low molecular weight heparin were used for deep vein thrombosis prophylaxis. For laparotomy, a vertical midline incision was made from the umbilicus to the pubic symphysis. An enlarged intramural leiomyoma was detected, arising from the uterus and filling the entire lower abdomen. The myoma was completely enucleated and removed without disturbing the endometrial cavity. A myomectomy was performed, and approximately 20 cm of the uterine mass was seen during the operation (Figure 2). Pathology confirmed leiomyomata, the largest of which measured 22 cm × 15 cm × 10 cm, with an aggregate weight 11.5 kg.

Figure 4. — The patient's ulcus cruris had regressed as seen at the 2-mo postoperative follow-up.

Outcome and Follow-Up

The patient was discharged to her home on postoperative day 3. The leg ulcer began to regress spontaneously in the 1^{st} wk after the myomectomy for the uterine myoma and continued over the next 1.5 months (Figures 3 and 4).

Discussion

In addition to the usual symptoms of leiomyomas (*i.e.* abnormal bleeding, dysmenorrhea, pelvic pain, and mass effect), uncommon symptoms and clinical manifestations have been reported in medical literature [6]. Ulcers are one such unusual symptom of leiomyoma. Leg ulcers are a common problem with many causes, Include venous and arterial insufficiency, vasculitis, peripheral neuropathy, lymphatic [7, 8], neoplastic, and metabolic diseases [1-3].

Large uterine myomas may be the cause of venous insufficiency [4, 5], especially when individuals with insufficient perforating vessels compress the major pelvic vessels significantly enough to disrupt blood circulation. In this case, right large saphenous vein insufficiency was suspected. However, unfortunately no hemodynamic studies were performed before the patient's myomectomy for confirmation. This fast-developing ulcer was resistant to therapy, and no varicose veins were noted. The ulcer regressed within 3 months after the myomectomy. This large fibroid mass appears to compress the right common iliac vein and trigger regurgitation of blood into the right large saphenous vein, leading to venous insufficiency and the formation of an ulcer only the right leg.

The combination of uterine myoma and leg ulcer in this case is one of the first reported cases to our knowledge.

Ethics Approval and Consent to Participate

Consent was obtained from the patient to be reported as a case.

Conflict of Interest

The authors declare no competing interests.

Submitted: August 06, 2019
Accepted: October 16, 2019
Published: June 15, 2020

References

[1] Valencia I.C., Falabella A., Kirsner R.S., Eaglstein W.H.: "Chronic venous insufficiency and venous leg ulceration". *J Am Acad Dermatol*, 2001, *44*, 401-412.
[2] Miller A., Ruzicka T.: "Differentialdiagnose des Ulcus cruris". *Der Hautarzt*, 2001, *52*, 593-603.
[3] Ohtani T., Tanita M., Tagami H.: "Resolution of a leg ulcer after hysterectomy for huge uterine myoma". *J. Dermatol*, 2003, 30, 530e532.
[4] Schneider E.L., Hafner J.: "Percutaneous transluminal angioplasty in the management of arterial leg ulcers". *Curr Probl Dermatol*, 1999, *27*, 220-225.
[5] Hafner J.: "Management of arterial leg ulcers and of combined (mixed) venous-arterial leg ulcers". *Curr Probl Dermatol*, 1999, *27*, 211-219.
[6] Jonas H.S., Masterson B.: "Giant uterine tumors". *Obstet Gynecol*, 1977, *50*, 2s-4s.
[7] McGovern T.W., Enzenauer R.J., Fitzpatrick J.E.: "Treatment of recalcitrant leg ulcers in cryoglobulinemia types I and II with plasmapheresis". *Arch Dermatol*, 1996, *132*, 498-500.
[8] Mason J., O'Keeffe C., Hutchinson A., McIntosh A., Young R., Booth A.: "A systematic review of foot ulcer in patients with Type 2 diabetes mellitus". *II: Treatment, Diabet Med*, 1999, *16*, 889-909.

Corresponding Author:
DILSAD HERKILOGLU, M. D.
Gynaecology and Obstetrics Department,
Istanbul Yeni Yüzyıl University Gaziosmanpasa Hospital,
Istanbul (Turkey)
e-mail: dilsadherkiloglu@hotmail.com