

Large intramyometrial cystic adenomyosis: a hysteroscopic approach with bipolar resectoscope: Case report

M. Giana, F. Montella, D. Surico, A. Vigone, C. Bozzola¹, G. Ruspa

Department of Obstetrics and Gynaecology "Piemonte Orientale" University;

¹Department of Anatomy and Pathohistology "Piemonte Orientale" University, Novara (Italy)

Summary

A case of an adenomyotic cyst in a 46-year-old woman was examined by means of transvaginal ultrasound, hysteroscopy and microscopy. The transvaginal ultrasound showed an anechoic area. Hysteroscopy revealed a cystic mass of the posterior wall and by means of a bipolar loop resectoscope the mass was removed. Histological examination of the lesion showed typical characteristics of an adenomyotic cyst. These results were consistent with those of previous reports and suggest that transvaginal ultrasound together with hysteroscopy is specific to diagnose and treat this kind of adenomyotic lesion.

Key words: Adenomyotic cyst; Hysteroscopy; Myometrium; Transvaginal; Ultrasound; Loop bipolar resectoscope.

Introduction

Adenomyosis is a condition of unknown etiology in which the myometrium is deeply invaded by endometrial glands and stroma, with associated surrounding smooth muscle hypertrophy. The finding classically associated with adenomyosis is excessive uterine bleeding accompanied by worsening dysmenorrhea. However, these findings are often seen in other conditions such as leiomyoma, endometriosis, or endometrial polyps that commonly accompany adenomyosis.

The prevalence of adenomyosis, according to published articles on surgical series, varies from 5% to 70%. The rate of preoperative diagnosis of adenomyosis on the basis of clinical findings is poor, ranging from 2.6% to 26% [1-7].

In 1991 Sathyanarayana [1] classified adenomyosis into three categories depending on the lesion – whether limited to the basal layer or also present in the deep and surface layers. Then, in 1994 Iribarne *et al.* [2] reported the first case of intramyometrial adenomyotic cyst thus creating a new category in the classification suggested by Sathyanarayana, namely intramyometrial cystic adenomyosis.

These authors and others [3, 4] reported the typical ultrasonographic findings in adenomyosis: an asymmetrically enlarged uterus with regular contours characterized by a thicker mean posterior wall than the mean anterior wall and echogenicity of the lesion ranging from that of normal myometrium to a subtle hypoechogenicity, as well as areas with significantly diminished echogenicity that may represent the appearance of endometrial glands during menstruation.

Often the diagnosis and treatment is possible with endoscopic procedures such as hysteroscopy [6] if the

lesion is nearby the endometrial cavity and laparoscopy if the adenomyotic cyst is in the deeper layer of the myometrium.

Case Report

Our patient was a 46-year-old woman, gravida 3, para 4, with a cesarean section at 29 weeks of gestation for a twin pregnancy in 1994, who presented with chronic microcytic anemia and a nine-month history of menorrhagia accompanied by pelvic and black pain. She had taken combined oral contraception for seven years.

Gynecological examination revealed a painfully mobile, bulky retroverted uterus (8 weeks' gestational size). Transvaginal ultrasonography showed an enlarged retroverted uterus with intramyometrial posterior anechoic submucous area 19 mm in mean diameter with sharp margins surrounded entirely by myometrium without peripheral vascularization, minimal dilatation of the cavity and a myometrial safety free margin of 7.8 mm (Figure 1).

Hysteroscopy was not immediately performed due to menorrhagia and anemia (Hgb: 7.3 g/dl), and preoperative GnRH-analogue therapy was given. She underwent hysteroscopy under spinal anesthesia after the second monthly shot of GnRH-analogue. We used a loop bipolar system for the intrauterine operative hysteroscopy. The operation was performed in only 35 minutes and no pain was referred by the patient. The endometrial cavity was elongated and occupied by a 2 cm cystic mass arising from the posterior-right lateral wall of the uterus. The cavity was surrounded by bloody endometrium and a thin layer of myometrium. The endometrium was polypoid-like thus a partial endometrial resection was performed. The cyst did not show any opening in the endometrial cavity and was deflated aspirating a brownish-yellow dense fluid. The wall of the cyst was removed and all specimens were sent for histological examination.

On microscopy the cyst was lined by endometrial epithelium with several adenomyotic foci (Figure 2). Sections of endometrium showed a proliferative phase and simple endometrial polyps.

Three months of GnRH-analogue therapy was given postoperatively. The patient has been healthy and has not had any recurrence six months after the treatment.

Revised manuscript accepted for publication March 7, 2004

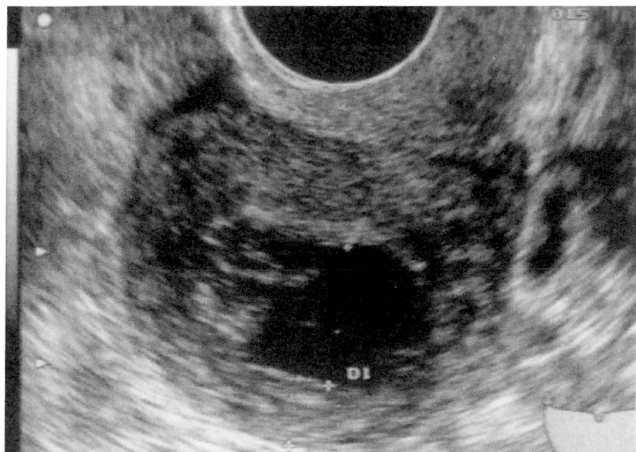


Fig. 1



Fig. 2

Figure 1. — Transvaginal ultrasound shows an anechoic submucous area 19 mm in mean diameter with sharp margins surrounded entirely by a thin layer of myometrium.

Figure 2. — Microscopy shows: A) several adenomyotic foci; B) the cyst lined by endometrial epithelium.

Discussion

Intramyometrial cystic adenomyosis is clinically not a distinctive entity. The use of a high resolution ultrasound scanner and a transvaginal probe is crucial to identify the lesion [6]. A misdiagnosis could be made with intracavitary lesions such as polyp degeneration or submucous and intramyometrial cystic myoma. Hysteroscopy allows a non-invasive diagnosis and conservative treatment. The loop bipolar system for intrauterine operative hysteroscopy to treat these patients seems to be the safest minimally invasive surgical procedure known [7]. It drastically reduces the risk of hyponatremia and grants a longer operative time, allowing a complete surgical procedure. Thus this approach reduces both hospital stay and recovery of the patients with reduced cost.

These results were mostly consistent with those previously reported and suggest that transvaginal ultrasound together with hysteroscopy is highly specific to diagnose and treat this kind of adenomyotic lesion.

References

- [1] Sathyanarayana R.A.C.: "Benign disease of the vagina, cervix and uterus". In: Berman M.C. (ed.): "Diagnostic Medical Sonography: A Guide to Clinical Practice". Philadelphia, JB Lippincott, 1991, 102.
- [2] Ejeckam G.C., Zeinab O.A., Bobeck H.E.: "Giant adenomyotic cyst of the uterus". *Br. J. Obstet. Gynaecol.*, 1993, 100, 596.
- [3] Iribarne C., Plaza J., De La Fluente P., Garrido C., Garzon A., Olaizola J.I.: "Intramyometrial cystic adenomyosis". *J. Clin. Ultrasound*, 1994, 22, 348.
- [4] Brosen J., De Souza N.M., Barker F.G., Paraschos T., Winston R.M.L.: "Endovaginal ultrasonography in the diagnosis of adenomyosis uteri: identifying the predictive characteristics". *Br. J. Obstet. Gynaecol.*, 1995, 102, 471.
- [5] Atri M., Reinhold C., Mehio A.R., Chapman W.B., Bret P.M.: "Adenomyosis: US features with histological correlation in an in vitro study". *Radiology*, 2000, 215, 783.
- [6] Kekstein J.: "Hysteroscopy and adenomyosis". *Contrib. Gynecol. Obstet.*, 2000, 20, 41.
- [7] McCausland V., McCausland A.: "The response of adenomyosis to endometrial ablation/resection". *Hum. Reprod. Update*, 1998, 4, 350.

Address reprint requests to:

Dr. M. GIANA, M.D.
Novara Clinica Ginecologica
Dept. of Obstetrics and Gynecology
Cs.so Mazzini, 18
28100 Novara (Italy)