

Case Report

Vaginal Myoma Expulsion after NovaSure Endometrial Ablation

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ABSTRACT A 46-year old multiparous woman visited a 1-stop clinic for abnormal uterine bleeding. There was a small submucosal type 2 myoma of 2 cm in her normal sized uterus. We treated her using Novasure endometrial ablation. One year later the patient suffered from sudden excessive vaginal bleeding and collapse. A myoma of 4 cm was being expelled from the uterus. *Journal of Minimally Invasive Gynecology* (2009) 16, 496–497 © 2009 AAGL. All rights reserved.

During the last decade, endometrial ablation has become a very popular treatment for patients with excessive/abnormal vaginal blood loss [1]. It is an effective and safe procedure, and complications are rare [2,3]. Therefore hysterectomy is often avoided.

Since 1994 several second-generation ablation techniques have been developed. The second-generation techniques employ disposable devices that are easy to use. The NovaSure endometrial ablation system (Hologic Europe N.V., Vilvoorde, Belgium) consists of a generator and a 3-dimensional bipolar disposable device. The NovaSure radiofrequency generator is a constant power output generator with a power cut-off limit set at 50 ohms tissue impedance. The device can create a confluent lesion involving the entire interior surface area, within the cavity of the uterus [4].

The literature reveals a high success rate (>90%) [2–5]. The success rate decreases somewhat in the presence of fibroids; however, intramural myomas up to 3 cm in diameter are acceptable for successful treatment of endometrial ablation [6].

To our knowledge no case of vaginal expulsion of a myoma after the NovaSure procedure or any other form of endometrial ablation has been described. However, vaginal expulsion of an intramural or a submucosal myoma is a well-known complication after uterine artery embolization (UAE). It is described in 3% to 6% of women after UAE and occurs mostly days or weeks after embolization [7–9]. This

article describes a case of myoma expulsion after NovaSure endometrial ablation.

Case Report

A 46-year-old multiparous woman presented at our 1-stop clinic for abnormal uterine bleeding. She had menorrhagia, resulting in anemia. She had a normal-size uterus with 1 submucosal type II myoma of 2 cm visualized during office hysteroscopy. Because she had persistent vaginal bleeding that was resistant to medical therapy, we advised her about several treatment options and decided on endometrial ablation with NovaSure. The operation was performed in June 2006 under general anesthesia. The operating time was 15 minutes.

Six weeks after this procedure the patient returned with symptoms of excessive vaginal bleeding and pain. Tranexamic acid and nonsteroidal antiinflammatory drugs were prescribed several times. Furthermore oral contraception was used in a continuous regimen. Eventually, because of persistent vaginal bleeding, laparoscopic hysterectomy was planned in June 2007, 1 year after the NovaSure endometrial ablation.

However, 2 days before the planned operation, the patient was admitted to the emergency department with excessive vaginal bleeding and collapse. Laboratory testing revealed severe anemia (Hb 4.4 mmol/l). Vaginal examination showed a black/greenish necrotic mass of 4 × 4 cm protruding from the cervix, with a penetrating odor (Fig. 1).

The diagnosis of myoma expulsion was made. Initial treatment consisted of tranexamic acid administered intravenously to stop the bleeding and blood transfusions (3 units). The myoma was partially removed transvaginally with a monopolar loop device (LiNA Loop; Superior Medical Limited, Toronto, Ontario, Canada) under general anesthesia. (Fig. 2)

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Fig. 1. Necrotic myoma expulsion.

However, a part of the myoma, mostly the myoma “stem,” was still located in the uterine cavity. Therefore a supracervical laparoscopic hysterectomy was performed as previously planned. Because of the necrosis, extra antibiotics were prescribed. The recovery was successful, and the patient returned home after 3 days. During follow-up, no further bleeding occurred, and the patient was satisfied. Pathologic examination revealed necrotic myoma tissue.

Discussion

Vaginal expulsion of myomas is a known complication after uterine artery embolization, after administration of a gonadotropin-releasing hormone agonist, and after pregnancy, which can be explained by the (sudden) cutoff or decrease of myoma blood supply [7–12]. In the case described, it is postulated that because of endometrial destruction, the myoma migrated into the uterine cavity. The mechanism could consist of a cutoff of blood supply after ablating the mucosal layer covering the myoma or because of destruction or damage of the capsule surrounding the myoma. In this case we presume it was a combination of both because there was a certain amount of necrosis on the outside of the myoma.



Fig. 2. Myoma after resection with monopolar loop device (Lina Loop).

The myoma migrated from the submucosa to the cavity, and the myoma was partially expelled vaginally. The expulsion of the myoma can be described as a late complication of the ablation technique because of changes in complaints occurred 12 months after the procedure, such as excessive vaginal bleeding and collapse because of it. The earlier complaints of blood loss and pain after the procedure, we can now presume, were due to the migrating myoma. However, to have been certain, hysteroscopy to determine the myoma being in migration would have been of great value.

Our patient insisted on having her uterus removed even after taking into consideration that perhaps all complaints of the previous year could have been due to the migrating myoma after the ablation.

Conclusion

This case report shows that migration of myomas is a possible complication after endometrial ablation with NovaSure. This should be considered, and counseling should be adjusted for patients with intramural uterine myomas opting for NovaSure endometrial ablation.

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