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Medical or surgical management of fibroids? An internet survey of gynecologists' views

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ABSTRACT

Aim: To assess the attitudes of gynecologists toward symptomatic fibroids and analyze which factors influence their choice of treatment.
Material and method: We surveyed the attitude of Belgian gynecologists toward patients' cases. We used a vignette of a woman with symptomatic fibroids and modified 3 factors: her age, her parity and her desire for pregnancy, thereby establishing 12 different cases. We ensured that each gynecologist (n = 1437) received one case, chosen randomly, by email. The gynecologists were asked whether and how they would treat the patient.
Results: Replies were received from 337 gynecologists (a 23% response rate). Of the 337, 116 (34%) would prescribe a medical treatment only; in this group, 29% specified acetate ulipristal a selective progesterone receptor modulator (SPRM) and 27% indicated progestins. Of the sample of 337 responders, another 116 (34%) would begin with medical treatment (70% an SPRM) and then proceed to surgery. Of the 337 gynecologists, 75 (22%) would perform surgery only. The preferred surgical treatments were myomectomy (53/75; 71%) and hysterectomy (19/75; 25%) when surgery was suggested as a first step, and myomectomy (91/115; 79%) and hysterectomy (18/115; 16%) when it was preceded by medical treatment. The choice of treatment varied significantly in relation to the 12 vignettes ($p < 0.01$). When we grouped the vignettes there was no significant variation in relation to age or parity, but a there was significant variation ($p < 0.001$) in relation to desire to achieve pregnancy.
Conclusion: We observed that, in women with symptomatic fibroids, the desire retain fertility is respected. Moreover, SPRM is increasingly used for symptomatic patients.

1. Introduction

Fibroids or myoma are the most frequent benign tumors occurring in women of reproductive age, affecting about 40% of 35 year old women and 70% of 50 year old ones [1]. After menopause, fibroids decrease in size and produce fewer symptoms [2]. Most women are asymptomatic but some symptoms, such as menometroragia and abdominal pain can occur [1]. Fibroids can also cause infertility [2]. Although the etiopathology remains unknown, some mutations have been observed, such as the translocation of chromosomes 12 and 14, the deletion of chromosome 7 or the trisomy of chromosome 12 [3]. Fibroids occur more often in women of African origin [4]. Other risk factors include: the presence of a family history, increased serum levels of estrogen and obesity [1,5]. Documenting the number, size and localization of the fibroids is generally by ultrasound and occasionally, magnetic resonance imaging [6]. Therapeutic decisions are based on: the patient's age, the severity of symptoms, the localization, number and size of the fibroids and the desire of a future pregnancy. Several approaches are possible ranging from no treatment at all to medical treatment only but may involve more invasive therapy [6]. Medical treatments are either progestins, combined estrogen-progestin, Levonorgestrel IUD, GnRH agonists, or since 2012, acetate ulipristal (UPA), a selective progesterone receptor modulators (SPRM) [7,8]. More invasive treatment consists of either conservative surgery (myolysis, myomectomy by laparoscopy, laparotomy or hysteroscopy) or a hysterectomy [9]. Finally, fibroids can also be treated using interventional radiology involving embolization of the uterine arteries, or MRI-Guided Focused Ultrasound Therapy [1,9]. Since therapeutic possibilities have been broadened by the recent availability of SPRM, gynecologists may have adapted their strategies.

We conducted a survey assessing the therapeutic approach of gynecologists for a woman presenting with symptomatic fibroids.

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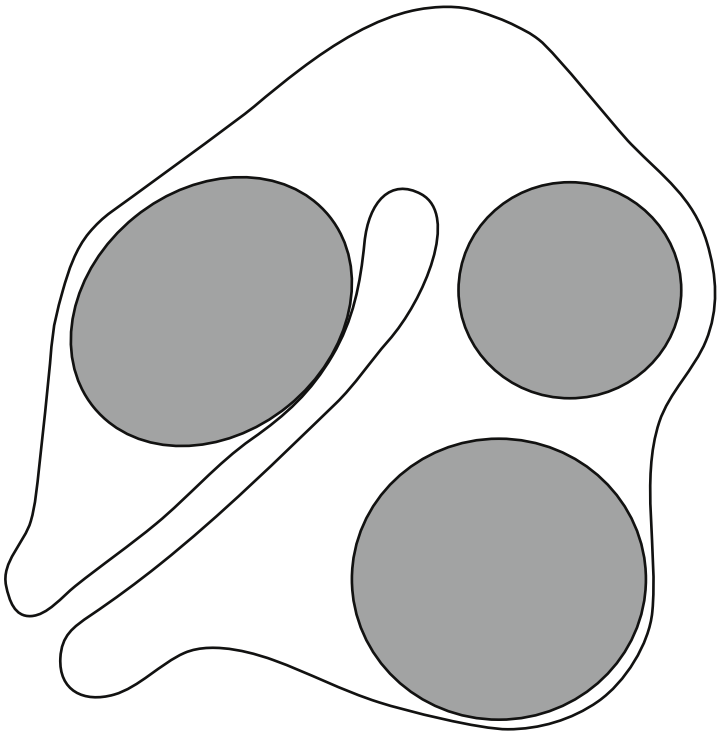

Fig. 1. An ultrasound image showed the presence of multiple fibroids (a sub-serous posterior (30 × 40 mm) one, an intra-mural, non-cavity deforming posterior one (25 × 30 mm), and an intra-mural, cavity deforming anterior one (31 × 41 mm)). No illustration was sent in the survey, but we have added a figure for the purpose of the article.

We aimed to assess whether their decisions were influenced by the patient's age, parity or future desire of pregnancy.

2. Material and method

2.1. Case presentation

We used a clinical vignette describing a patient who had several fibroids. For the previous eight weeks she had been experiencing daily abdominal pain, was bleeding heavily and had a serum hemoglobin of 8.5 g/dl. She was taking pain medication and iron supplements. An ultrasound image showed the presence of multiple fibroids (a sub-serous posterior (30 × 40 mm) one, an intra-mural, non-cavity deforming posterior one (25 × 30 mm), and an intra-mural, cavity deforming anterior one (31 × 41 mm)). No illustration was sent in the survey, but we have added a figure for the purpose of the article (Fig. 1). Otherwise her history and physical examination were normal. We modified three factors in the presentation: her age (either 30, 41 or 46 years old), her parity (either nulliparous or having had two pregnancies and two children) and finally her desire for pregnancy (she either expressed no desire for pregnancy or she expressed the desire to become pregnant). We thus constructed twelve different cases.

2.2. Survey

We ensured that each Belgian gynaecologist, registered with the two Belgian societies of gynaecology VVOG and GGOLFB, (n = 1437) receive by email, one case, chosen at random, using a computer program. A computer program was built to allocate, at random, only one vignette to each gynecologist while ensuring that an equal number of the 12 vignettes would be sent. The gynecologists were asked whether and how they would treat the patient (closed answers: medical treatment only, surgery only, combined treatment, other, none). Depending on their first answer, they were asked further questions; for instance if they answered that medical treatment would be prescribed, they were asked which one (closed answers: progestins, oestroprogestins, SPRM, GnRH Agonist, NSAID, other); if an operation was chosen, they were asked which surgical treatment they would perform (myomectomy (and if so by hysteroscopy, laparoscopy, laparotomy), or hysterectomy (and if so by vaginal route, laparoscopy, laparotomy) or embolization, other). MRI-Guided Focused Ultrasound Therapy was not proposed as an option, because it is currently not a reimbursed procedure. Finally, they were also asked whether they would perform surgery after medical treatment (if they chose that option).They were assured that their participation would remain anonymous and that there were no commercial implications to the survey. The study was approved by the local ethical committee. A questionnaire evaluating the physician's demographic characteristics was included.

2.3. Statistical analysis

We had calculated a sensitivity analysis for the survey. Assuming that respectively half, a third and twenty percent of gynecologists would consider a hysterectomy for a symptomatic patient with no pregnancy desire and that respectively 25%, 15% and 10% would do so for a patient with pregnancy desire (that is a 50% difference), it would be necessary to obtain answers from respectively 55, 118 and 200 physicians, with a power of 80% and a type I error (alpha) of 5%. We knew from previous experience that the response rate would vary between 15%–35% from a sample of 1000 physicians [10,11].

We performed statistic analyses using SPSS software. Descriptive analyses were used. We analysed the responses in relation to the twelve clinical cases. The effect of the three factors (age, parity, and pregnancy desire) was also assessed. All analyses were evaluated by χ^2 tests. The significance level was set at $P < 0.05$.

2.3.1. Data concerning the surveyed gynecologists

We conducted the survey in March 2016, and after four weeks we had 337 (23%) responses, after having sent two emails. At this time we decided to end the survey. Of the responders, 56% were women, 44% were men, 54% worked only in hospitals, 10% were private practitioners only and 36% had a mixed practice. If surgery was indicated, most would perform it themselves (66%) or at least be present at the time of the surgery (86%). The age distribution of the gynaecologists was as follows: younger than 40: 41%, between 40 and 60: 39%, above 60: 20%. There was no variation in response rate related to the vignettes.

There was no significant variation in attitude related to the physicians' gender, type of work, number of years of experience, and whether or not the gynecologists routinely perform or assist surgical operations.

3. Results

The detailed answers of the survey per vignette are presented in Table 1. Globally, when analyzing the therapeutic attitude for the total number of cases (12 vignettes, 337 records), a third of gynecologists (116/337; 34%) would prescribe a medical treatment to these symptomatic women, a third (116/337; 34%) would begin with a medical treatment and proceed thereafter to surgery and a fifth (75/337; 22%) would resort immediately to surgery (another 10% would prescribe other therapy). The preferred medical treatments were SPRM (33/112; 29%) and progestins (30/112; 27%), when a medical treatment was proposed without surgery and SPRM (81/116; 70%), when medical treatment was suggested