Role of Fibroids in Infertility

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OBGYN.net Conference Coverage From the American Society of Reproductive Medicine, Orlando, Florida, October 22-24, 2001

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Hugo C. Verhoeven, MD: "Good morning, my name is Hugo Verhoeven and I'm from the Center for Reproductive Medicine in Dusseldorf, Germany. I'm on the Editorial Board for OBGYN.net, and I'm reporting from the meeting of the American Society for Reproductive Medicine in Orlando, Florida. It is a real big honor for me to have the chance to talk today with Juergen Eisermann who is the owner of an important IVF center in Florida that's called the South Florida Institute for Reproductive Medicine. Juergen, it's a little bit of a strange feeling for me talking in English to you because we've known each other for so many years. You're originally coming from Munich but are working in the United States for many, many years. I am Belgian working in Germany since 20 years."

Juergen Eisermann, MD: "We're both a little international because you're indeed from Belgium originally and you ended up in Dusseldorf, and I left Germany for Miami. You still hang out in Miami once in a while, and you appreciate the opportunity to be in a different climate. I'm glad I live here, I enjoy visiting Germany now, and I'm always enjoying seeing you here of course."

Hugo C. Verhoeven, MD: "Thank you, Juergen. First of all, please give us an overview of what you are doing and what are you offering your infertile patients. Then we can go into special topics. Is it okay for you?"

Juergen Eisermann, MD: "Sure, I've been in Miami for thirteen years and at the time when I came Miami was really the Wild West in terms of infertility care; there was not much available. I started out offering the concept of in vitro fertilization in a private practice setting in Miami as the first private practice IVF program in 1989, since then a lot of things have happened. We've become a referral center for a lot of Latin American programs because as Miami evolved as an economic center for Latin America so did the patient population from Latin America. We've since grown to four physicians - Dr. Maria Bustillo is my associate, Dr. Kim Thompson, and Dr. Ellen Wood. We have an active egg donation program, which does about 50-60 cycles a year. We have about 400 IVF cycles in our program, and we are also very active in offering ancillary services such as reproductive surgery, microsurgical tubal reanastomosis, and laparoscopic myomectomies. We are very much into laparoscopic procedures in the sense of avoiding hospitalizations and affording patients an outpatient type of treatment so we offer the whole gamete."

Hugo C. Verhoeven, MD: "Yes, but before you started doing IVF, your specialty was reproductive surgery, is that correct?"

Juergen Eisermann, MD: "I always had a very, very high level of interest for surgical options. Although I have to tell you, the way reproductive medicine goes these days, there is a certain trend away from surgery and towards assisted reproduction technology. I personally believe you need to prepare the patient properly and you still need a good uterus, for example, in order to carry a pregnancy successfully so we're trying to focus back onto that quite a bit."

Hugo C. Verhoeven, MD: "But why is that? Why is there a tendency to go away from surgery and more to other techniques?"

Juergen Eisermann, MD: "You know that over the years the success potential of in vitro fertilization
and ancillary procedures has increased dramatically. Of course, to a good degree because more and more embryos were transferred but also to a good degree because the quality of the lab and the ancillary techniques have improved dramatically to the point where we can now offer a success rate that can't be equaled by a lot of surgical operations."

Hugo C. Verhoeven, MD: "You've just stated that the uterus is important for any kind of pregnancy - whether it's produced by intercourse, insemination or IVF - you always need the uterus. I know one of your topics of special interest is fibroids; what is your vision on the fibroid problem today?"

Juergen Eisermann, MD: "As you know, uterine fibroids have been a concern for a lot of gynecologists because the type of procedure that is involved in removing them has always been associated with a lot of bleeding, a lot of concern for the capability of pertaining the uterus's ability to carry the pregnancy, and of course adhesions. Post-operatively that may actually interfere with fertility so on top of that it's major surgery and the kind of training that has been afforded to a lot of gynecologists in the United States has been limited quite a bit so that led sort of to the concept of using GnRH analogues to shrink fibroids and rather not to tackle them. I personally believe that a myomectomy performed properly and ideally under laparoscopic settings will significantly reduce your risk for early pregnancy loss, for later complications with preterm labor, and may actually - depending on the location of the fibroid - increase the patient's fertility potential overall."

Hugo C. Verhoeven, MD: "What is the incidence of fibroids in your population of patients?"

Juergen Eisermann, MD: "As you know, we have an ethnic mix, for example, the incidence of fibroids in the Afro-American population is as high as 1 in 7 women. The overall incidence of significant fibroids is fairly low. In other words, for every 4 or 5 women that present with fibroids on a vaginal ultrasound finding, only about one-third or less really require therapy. But I think you have to separate out what kind of scenario you deal with, let me give you an example. You have a 38-year-old who has significant fertility problems and is now shelling out her seriously significant self-earned dollars to pay for in vitro fertilization. You want to counsel her in the sense of you have a fibroid here that could cause an increased incidence of pregnancy loss or preterm labor, you might prophylactically want to remove that fibroid before you decide doing in vitro fertilization because you want to maximize your potential outcome. That's just one scenario."

Hugo C. Verhoeven, MD: "For the understanding of our readers and listeners, there are different kinds of myomas or fibroids. They can grow inside the uterine cavity, they can grow just in the wall of the uterus, or they can also grow out and away from the uterine cavity. Tell us what is the difference and the significance of those fibroids for infertility?"

Juergen Eisermann, MD: "In regards to infertility, your special problem fibroid is the submucous fibroid or the intracavitary fibroid that actually is often associated with bleeding abnormalities as well. Then there is the partially transmural, partially submucous fibroid that actually compresses a certain portion of the endometrial cavity compromising blood supply to the endometrium, reducing implantation, and of course increasing irritability of the uterus overall. The most important thing is that you differentiate between a uterine fibroid and adenomyosis which, obviously, if you're ending up with a diagnosis of adenomyosis it may not be an operative scenario but it's important to be sensitive towards the significance of fibroids, counseling women properly beforehand, and making the right diagnosis."

Hugo C. Verhoeven, MD: "But those myomas, you resect via the uterine cavity by the technique of hysteroscopy?"

Juergen Eisermann, MD: "Correct, if you have an intracavitary or predominantly intracavitary fibroid a hysteroscopic approach is certainly the preferred approach. But I'll also tell you that if you have a fibroid that is mostly transmural and still compresses the endometrium significantly, I sometimes prefer to actually do a laparoscopic approach with a uterine incision for the purpose of preventing damage to the endometrium. Because if you are aware of the fact that the endometrium is directly attached to the fibroid, you will utilize the resection technique that avoids penetration of the endometrium and, therefore, damage to the endometrium which in turn will reduce the risk of intrauterine adhesion formations."
Hugo C. Verhoeven, MD: "Now for the patient - what is the duration of the surgery, is it outpatient, and what is the pain score? What do the patients tell you after the surgery; would they redo the operation?"

Juergen Eisermann, MD: "The interesting thing is it is all depending on how you approach the patient and how objectively you deal with the issue at stake. Number one, I tend to inform my patients by showing them an actual video of the technique that I employ doing the procedure. This wipes out a lot of the concern that has been planted in their minds from other gynecologists who are saying - you're going to have major blood loss, you're going to be hospitalized, or your uterus will not be able to carry. By virtue of presenting them the almost bloodless laparoscopic video procedure and showing them in a clip that may not need more than two or three minutes of the basic techniques which also include the utilization of a morcellation device that is able to, I call it, make spaghetti out of potatoes. It's where you remove the pieces and you speed up the process dramatically as well as showing them the surgical techniques like suturing and extracorporeal knot tying - it makes them feel more comfortable about the procedure. I have always pointed out to my patients and will in the future also that I don't really focus so much on how we get that fibroid out then how the end result is. So they have to sign for a potential laparotomy if that may be necessary because really what I'm ultimately most interested in is a well-repaired uterus that will take on the pregnancy properly. They also need to understand upfront that a cesarean section will be necessary in case a major uterine incision is made to prevent them from going through labor. I have been met with a lot of enthusiasm from my patients and actually have seen a lot of patient referrals because they were just amazed by the fact that they could go home the same day and they were back to their normal work activity within five to seven days if it was a laparoscopic approach."

Hugo C. Verhoeven, MD: "We hear and read quite a lot about the technique of embolization. What's your opinion on this technique?"

Juergen Eisermann, MD: "I think it's been a great addition overall to the treatment options available to women that have problems with fibroids. However, since we're talking about infertility and the relation of fibroids to the fertility issue, I would caution a woman not to consider that right off the bat as an option because the blood supply to the uterus may be compromised in a way that may also reduce her fertility and delay her chance to conceive. There have been reports in the literature that actually talk about spontaneous pregnancies after arterial embolization but it's my contention that if you do a very good job with the arterial embolization and you really are able to shrink the fibroid by virtue of cutting the majority of the blood supply out, you will also compromise some of that endometrium. I would venture to say that you are doing a patient a disservice who is really trying to get pregnant still afterwards so use it for women that already have completed their childbearing."

Hugo C. Verhoeven, MD: "So in infertility there's no place for embolization."

Juergen Eisermann, MD: "At least at this point in time until we can actually identify - and there is some research going on in that area - the actual blood supply to the fibroid itself so we leave the uterine arteries intact and functional and actually just obliterate the blood supply to that one, two, or three individual fibroids themselves. We're not there yet but we may get there."

Hugo C. Verhoeven, MD: "Juergen, we just talked about infertile patients but I think you are also very happy to treat patients with irregular bleeding, pain because of myomas, or pressure. What do you do in those patients?"

Juergen Eisermann, MD: "Here it is important, I believe, to be the gynecologist that counsels the patient properly. I see a lot of concern in our ob-gyn specialty in general about issues like - if we can't offer it, we're not going to suggest it to the patient. I think what it takes here is a good joint effort by both the gynecologist as well as the interventional radiologist to establish a working relationship. I remember days where gynecologists weren't telling the patient about the option of a myomectomy because all they really could feel comfortable with doing was a hysterectomy. I think those days may be over and what we now need to do is we need to start working together with the interventional radiologist in an objective way. I, for example, believe that a wonderful treatment for adenomyosis is arterial embolization. Your typical heavily overweight patient that represents a
significant surgical risk may be an ideal candidate for arterial embolization. Your acutely bleeding patient that needs immediate therapy because of their severe anemia is not a good surgical candidate and wants to avoid having to have a transfusion may be a great candidate as well. Whose to say that if you had an arterial embolization and you're not happy with the outcome you can't later on do a myomectomy or proceed to a hysterectomy."

Hugo C. Verhoeven, MD: "What is adenomyosis?"

Juergen Eisermann, MD: "Adenomyosis is distinctly different from a uterine fibroid such as a uterine fibroid is arising from a single muscular cell that develops within a capsule. It has a delineated margin of resection and growth and can be removed without damaging the rest of the uterus while adenomyosis is a continuous growth of many, many muscle cells that just take off on their own. It cannot be delineated and can, therefore, not be safely surgically resected."

Hugo C. Verhoeven, MD: "How many myomectomies are you doing a year?"

Juergen Eisermann, MD: "It's between 100 to 150."

Hugo C. Verhoeven, MD: "So you're one of the leading uterine surgeons in Florida."

Juergen Eisermann, MD: "I certainly have made this one of my surgical efforts, and I'm known for that in the community."

Hugo C. Verhoeven, MD: "For our readers and listeners who are interested, how can they contact you?"

Juergen Eisermann, MD: "We have a website; it's very simple, it's http://www.ivfmd.com."

Hugo C. Verhoeven, MD: "Maybe you could repeat that for them again."

Juergen Eisermann, MD: "It's http://www.ivfmd.com, our e-mail address is ivfmd@aol.com, and they of course can also call the South Florida Institute for Reproductive Medicine at 305-662-7901. My name is Juergen Eisermann and I'll be happy to respond personally and I'm looking forward to hearing from them."

Hugo C. Verhoeven, MD: "Thank you."

Juergen Eisermann, MD: "Thank you."

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