Note from the Editor, Dr. Rony Elias

Dear SRS Members:

I am happy to bring you the 2021 Fall edition of the SRS newsletters. While the pandemic is far from being behind us, the last 6 months brought a lot of positive developments that we all can be proud of.

The ASRM annual meeting was held in Baltimore with more than expected in-person attendance. Our society and its members were involved in multiple workshops and sessions.

This issue will include Dr. John Petrozza, our immediate past president, final message. However this will certainly not be the last time you will hear from him as Dr. Petrozza will continue to be very actively involved in our society especially as he leads the new International SRS project that he is organizing.

For our international corner, our Brazilian colleagues submitted an article regarding their treatment approach to infertility secondary to endometriosis.

In our urology corner, Dr. Brant and Dr. Kashanian have an exciting article about ejaculatory duct dilation and seminal vesiculoscopy for the

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Message from SRS Past President, Dr. John C. Petrozza

Relevance. That is what was brought up as a major need for the society when I first joined the SRS Executive Board, and it was my theme going into my term as president. How do we remain relevant in a specialty that is placing more emphasis on ART and genetics and less on reproductive surgery? How can I walk into the vendor’s hall at the annual meeting and not be sad to no longer see all the surgical companies that used to fill the hall with their equipment and simulators? Even companies that have ART, genetic and surgical divisions will only have booths for the former and not the latter.

Over the last 5 years, SRS has pushed forward a long-term mission of creating awareness and opportunity. Awareness of what reproductive surgery means and opportunity for training fellows and engaging with our members and colleagues. We continued our yearly SRS/SREI Fellows’ Surgical Boot Camp, but this year did it virtually due to COVID restrictions. We even had 10 fellows participate in a virtual “hands-on” course that was an unequivocal success. And of course, the 2021 ASRM program that is listed in this newsletter, and so wonderfully organized by Kat Hwang, was an enormous success. There is no doubt that the opportunity for a hybrid meeting allows for more interaction and networking and I am excited about the program that Pres Parry is putting together for 2022.

As my predecessors had told me, you want to accomplish at least one thing during your presidency. The most important achievement this year was finalizing the SRS Surgical Scholar’s Track, a vision that started a few years ago, energized in Dr. Lindheim’s tenure, and brought to fruition earlier this year. This track offers the opportunity for fellows in an approved REI fellowship, with adequate surgical volume, to use some of their training to focus on more surgical training and research. In the latter part of 2020, the proposals that were submitted to ASRM for review were meeting with resistance and requests for clarification of what this program offered. In the meetings with ABOG, ACGME, SREI and ASRM administrators, it was refreshing to see a sincere interest in fostering a resurgence in reproductive surgery. However, there were still some naysayers who honestly questioned why REIs were still operating. ABOG had asked us to ensure that SREI was supportive, and after networking and presenting to the SREI Board, there was some trepidation, but an overall willingness to start the Surgical Scholar’s

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Track with close observation. ACGME was very excited about our proposal and had a program specifically to try new educational endeavors if we chose to follow that path. ASRM was still not budging and continued to push me, and the Surgical Track Committee (Steve Lindheim, Mindy Christianson, Rebecca Flyckt), to make the program better, with clear cut goals, didactics, and expectations. When ABOG announced that REI fellows will have 6 months less of required research, which could now be used for elective time, the opportunity was perfect to push forward with the surgical track. ASRM finally approved the SRS Surgical Track, with the first four programs, Massachusetts General Hospital, University Hospitals – Cleveland, Mayo Clinic, and Johns Hopkins, starting in July with at least 2 other programs starting next July (Brigham and Womens Hospital and University of South Florida).

Two new committees were created: The SRS International Committee and the SRS-SIGs Committee. The International Committee will be comprised of 15 members with the goal of fostering global networking, awareness of reproductive surgery, joint training programs (similar to our surgical boot camp), opportunities for our global partners to lecture to our surgical fellows, at our boot camp, and at our annual meeting, and improving access to reproductive surgery in resource-poor areas. The SIGs (special interest groups) are an integral part of the ASRM community but have less of a voice than the affiliate societies or professional groups at ASRM. Our hope is that the SRS-SIGs Committee will bring those SIGs (and professional groups) that have an overlapping interest with SRS, such as fibroids, endometriosis, imaging, health equity, uterine transplant, pediatric and adolescent, urology, nursing, and managers) to the same table to network, help with didactics, develop domestic and global programs, and work more closely for the annual ASRM meeting. In addition, SRS and SREI approved joint liaisons to our respective boards, so that each organization is adequately represented. Ranjith Ramasamy has done an admirable job in this new responsibility.

SRS was involved with three major ASRM committees that are still ongoing. The Mullerian Anomaly Classification Committee presented the new ASRM Mullerian Anomaly Classification at the annual meeting and will continue to optimize the classification in 2022. Spearheaded by former SRS President, Samantha Pfeifer, getting rave reviews and the web-based program simplifies the classification and makes it more user-friendly. The International Endometriosis Classification, with representatives from SRS and the Endometriosis SIG, have been meeting to finalize a new endometriosis glossary and review of current endometriosis classifications. And of course, the ASRM COVID Task Force, of which I proudly represent SRS, continues to meet monthly to ensure appropriate guidance to our members.

Several infrastructure changes were developed. The website is being updated and should be more engaging and thought-provoking. The Electronic Communications Committee, chaired by Zaraq Khan, will also start to engage develop a secure social media platform so that members can engage and receive notifications more easily. REI fellows will be a part of all our new committees so that they can be involved at a national level much earlier in their career. The SRS Board meets every two months, rather than quarterly, to ensure that tasks are being completed and committees are engaged and meeting their goals. The SRS President and Vice-President meet with the SRS Coordinator every two weeks to review any outstanding tasks and any potential questions or issues. And at the last SRS Board Meeting in Baltimore, I presented several bylaw changes that will better define the overall structure of SRS, outlined the responsibilities of each officer on the board, and finalized charters for the SRS Surgical Scholar’s Track Committee, the International Committee, and the SRS-SIGs committee.

Finally, after meeting with ASRM, we have received the green-light to start to engage more with other gynecologic surgical societies, such as the Society for Gynecologic Surgery and the Society for Laparoscopic and Robotic Surgery. It is hoped that by creating programs within these societies, we can start to create more awareness of what we do as a society, engage trainees earlier in their training so that they can see the surgical benefit of an REI fellowship, and engage with industry so that they can start to come back to support the wonderful programs that SRS and ASRM offers.

I cannot thank enough the hard work provided by the entire SRS Board. I know we have continued to make SRS more relevant and have fostered more awareness and opportunity. It truly takes a village and the group I worked with are some of the best surgeons in the field, committed to the goals of SRS and have become some of my closest friends.

Sincerely,
John C. Petrozza, M.D.
Immediate Past President, SRS
International Corner: Different approaches on infertility secondary to endometriosis

Henrique Mendonça Abrão1, Marina Paula Andres1,2, Mauricio S Abrao1,2
1 Division of Gynecologic, BP- A Beneficência Portuguesa de São Paulo, São Paulo, Brazil
2 Departamento de Obstetricia e Ginecologia, Hospital das Clinicas HCFMUSP, Faculdade de Medicina, Universidade de Sao Paulo, Sao Paulo, SP, BR.

Introduction

Infertility is a health issue worldwide, concern about which has been growing exponentially over the last few years. Infertility is defined by the American Society for Reproductive Medicine as the lack of a pregnancy after 12 or more months of frequent unprotected sexual intercourse1. Endometriosis, among the most prevalent causes of infertility, affects approximately 20–50% of all infertile women2. Endometriosis consists of the ectopic implantation of endometrial tissue and affects the peritoneum, fallopian tubes, ovaries, bladder, intestines, nerves, and ureters and may cause significant inflammation in the affected areas3. Although not completely defined, the pathophysiology of infertility caused by endometriosis involves reduced ovarian function secondary to endometriomas, tubal immobility caused by adhesions and endometriosis lesions, altered peritoneal fluid, and endometrial receptivity4,5. Endometriosis is also related to dysmenorrhea, deep dyspareunia, chronic pelvic pain, cyclic intestinal and urinary symptoms, and other less common symptoms6. The diagnosis can be made by the association of the symptoms, physical examination findings, and imaging findings such as ultrasound or magnetic resonance imaging with bowel preparation and professionals trained to perform such exams7-9. Treatment depends on symptoms, disease severity, and unsuccessful previous treatments ranging from nonsteroidal anti-inflammatory drugs and hormonal therapy to complex pelvic surgery to treat severe disease and restore anatomy. Treatment decisions must be based on pain severity; endometriotic implant size, location, and depth; pregnancy desire; and ovarian reserve. However, such treatments may help one symptom but worsen others9-12. In terms of fertility preservation, ovarian reserve declines over time and becomes critical by the age of 35 years13. Ovarian reserve refers to the population of primordial follicles, and its life span can be estimated by the serum levels of anti-Müllerian hormone (AMH)13,14. The tendency of women to postpone childbearing over the last decade has led to an increasing demand for oocyte and embryo cryopreservation15. In addition, the oncologic perspective has contributed to the development of new techniques such as ovarian tissue cryopreservation16.

Surgical Approach

As previously mentioned, endometriosis is an important cause of female infertility, but some of its treatments may also damage the ovarian tissue15. During surgery for deep and ovarian endometriosis, the main causes of ovarian reserve damage are direct cortex injury during stripping of the endometrioma capsule or adhesiolysis and reduction of ovarian blood supply18,19. Conservative surgical techniques, such as minimal use of electrocoagulation, drainage, and vaporization of the capsule with a CO2 or argon laser instead of stripping and minimal manipulation of the ovaries, may reduce the impact of the surgery on ovarian reserve18,20. Donnez et. al showed in 2010 that surgeon experience also contributes to decreased ovarian damage and better postoperative ovarian reserve21.

Brazilian approach

According to the Brazilian Federation of the Associations of Obstetrics and Gynaecology, the decision to treat endometriosis in infertile patients must be individualized, and the decision on surgical timing must account for patient’s age, clinical presentation, infertility duration, and social condition23. In our practice, in cases of infertility associated with endometriosis, ovarian reserve is evaluated using the ultrasonographic follicle count and AMH level. Assisted reproductive treatments (ART) are recommended for patients who do not require immediate surgery. For surgical candidates (visual analog scale score for pain severity, ≥7; symptomatic intestinal lesions; ileal or appendiceal diseases; ureteral obstruction; suspected malignancies or failure of previous ART), patients are classified as those under 30 years old with good ovarian reserve and those over 30 years old with poor ovarian reserve and/or a history of CONTINUED ON THE NEXT PAGE
previous ovarian surgery. The first group is suggested surgery followed by in vitro fertilization (IVF). The second group, on the other hand, is offered cryopreservation prior to surgery\textsuperscript{10}.

**Conclusions**

In patients with infertility secondary to endometriosis, the possible treatments for infertility and the negative impacts of surgery require consideration. The usual time delay to the diagnosis of endometriosis associated with ovarian damage and the late age at which a woman desires pregnancy are factors that may impact their fertility. Cryopreservation should be offered early in their reproductive life, if feasible, prior to complex surgical procedures, mainly in patients at high risk of ovarian failure. The main limitation of this approach, especially in Brazil, is the high cost of these procedures, which is usually not covered by health insurance companies and offered in low quantities in public health. In addition, updates and more recent guidelines from major societies on this topic are lacking. New emerging techniques, drugs, and approaches have been developed over the last few years and improved the approach to treating infertility ever since; however, studies evaluating them in patients with endometriosis are still needed.

References:


NOTE FROM THE EDITOR, CONT.

treatment of chronic hematospermia and dysorgasmia.

Finally, I am mostly excited to inform you about the newly approved SRS Surgical Scholars Track Fellowship. This is a special pathway embedded within the traditional 3 years REI fellowship. This will provide formal surgical training to REI fellows, in addition to promoting basic science and clinical research in reproductive surgery.

I encourage any interested programs to contact the fellowship chair, Dr. Steven Lindheim.

Benefits of SRS Membership:

- Secured access to SRS newsletters, literature reviews, surgical videos from SRS members, and the SRS Discussion forum! These benefits are only available to active SRS members.
- Involvement in the only society that specifically addresses the issues of pelvic reconstructive surgery in women of reproductive age
- Interaction with a national and international group of surgeons who share an interest in reproductive surgery
- The opportunity to review research abstracts with a focus on reproductive surgery
- Participation in roundtable discussions at ASRM Scientific Congresses
- The discussion of novel surgical techniques through video sessions
- Participation in surgical hands-on courses at ASRM Scientific Congresses
- Access to participate in ASRM Pre-Congress courses on a variety of topics related to the field of reproductive surgery
- Participation in collaborative research projects addressing surgical outcomes
Introduction:

Hematospermia is an uncommon urologic condition, accounting for only 1% of complaints in patients presenting to urology clinics. While many cases have a benign etiology, it is a cause of significant distress in affected patients. Some causes of hematospermia include infection, inflammation, malignancy, ductal obstruction, vascular aberration, and iatrogenic injury. Hematospermia is usually self-resolving and does not cause significant morbidity. However, rarely it can be chronic and cause significant pelvic pain and dysorgasmia.

The work-up of hematospermia starts with a complete history and physical exam, urinalysis and urine culture. Adjunctive laboratory tests ordered in chronic cases include semen analysis and semen culture, while imaging tests include transrectal ultrasound and prostate MRI. After malignancy and infection have been ruled out, symptomatic treatment may still be necessary for benign cases. First-line treatment options for bothersome symptoms include antibiotics, non-steroidal anti-inflammatory drugs, alpha blockers, and 5-alpha reductase inhibitors.

Patients with hematospermia refractory to medical management may require operative intervention. The existing literature is sparse, but transurethral resection of ejaculatory ducts with ejaculatory duct dilation and/or seminal vesiculoscopy has been reported to have both diagnostic and therapeutic potentials. In 2019, we performed the first seminal vesiculoscopy at New York Presbyterian – Weill Cornell Medicine. Here we describe our operative technique and patient outcome.

Case:

A 28-year-old male presented to our clinic with longstanding complaints of hematospermia and ejaculatory pain. He had previously been seen by 3 urologists over a 5-year period without improvement in symptoms. He had been treated for prostatitis with multiple courses of antibiotics and NSAIDs without symptomatic relief and had been taking tamsulosin and finasteride for the past year.

His genitourinary exam was normal, notably with no tenderness to the testes, cord structures, or prostate. His laboratory studies were also grossly normal. His semen analysis was notable for low motility, high number of white blood cells, and cloudy brown color consistent with blood in the ejaculate. His semen culture was negative for bacteria.

A transrectal ultrasound revealed echogenic areas in the left seminal vesicle compatible with calcification or blood clot (Fig 1). This was followed with a prostate MRI, which showed a hyperintense region in the left seminal vesicle thought to represent a blood clot. There was also dilation of the right seminal vesicle, concerning for possible ejaculatory duct obstruction (Fig 2). At this time, the decision was made to perform a cystoscopy and transurethral resection of ejaculatory ducts with ejaculatory duct dilation and possible seminal vesiculoscopy.

The procedure began with a cystourethroscopy, which confirmed a normal bladder and urethra. Next, the verumontanum was visualized, and both ejaculatory ducts were identified (Fig 3). Under direct cystoscopic vision, a 5-french open-ended catheter was inserted into the left ejaculatory duct and a micro-guide wire was inserted without difficulty (Fig 4). Position was
confirmed simultaneously by real-time transrectal ultrasonography. A percutaneous transluminal angioplasty balloon dilator was then inserted over the micro-wire into the left seminal vesicle, and the ejaculatory duct was dilated to facilitate seminal vesiculoscopy. A 4.5 French semi-rigid ureteroscope was inserted over the guidewire to enter the seminal vesicle. Upon inspection of the left seminal vesicle, significant debris were visualized. A 30 cc leur-lock syringe was used to irrigate out the debris. The right ejaculatory duct was unable to be similarly cannulated, consistent with ejaculatory duct obstruction that was visualized on MRI. The decision was then made to perform a transurethral resection of the ejaculatory ducts (Fig 5). After ejaculatory duct resection, the right ejaculatory duct was able to be cannulated. Dilation of the right ejaculatory duct was performed in a similar fashion. Seminal vesiculoscopy was then performed. To confirm entry in the correct seminal vesicle on vesiculoscopy, methylene blue dye was injected under transrectal ultrasound into the right seminal vesicle via a spinal needle. A foley catheter was inserted after the procedure and removed the following day. The patient had no post-operative complications. At 6- and 12-month follow-up, the patient reported complete resolution of hematospermia and dysorgasmia. A 6 month follow up semen analysis demonstrated normal parameters without pyospermia.

Discussion:

Seminal vesiculoscopy is a novel procedure that has both diagnostic and therapeutic potential in the workup hematospermia. In their practice, vesiculoscopy was achieved by puncturing the prostatic utricle with or without a guidewire. If this was unsuccessful, they aborted the procedure. Their success rate in performing seminal vesiculoscopy was 92%. Of the patients with successful vesiculoscopy, they reported complete resolution of hematospermia in 94% of patients. However only 50% of patients had positive operative findings, suggesting that hematospermia can be self-resolving even in cases initially deemed intractable. Of the patients who had positive findings on vesiculoscopy, calculi (89%) and bleeding/blood clot (78%) were observed most frequently. Another case series comes from Han et al in South Korea, who performed seminal vesiculoscopy in 70 patients primarily using the utricular orifice for access, which they punctured with a coagulating electrode. They performed transurethral resection of the ejaculatory ducts when this approach failed. Hematospermia subsided in 79% of patients.

Seminal vesiculoscopy appears to be an effective treatment for hematospermia.
Urology Corner, cont.

refractory to medical therapy in appropriately selected patients. In our limited experience, we have had success using transurethral resection of the ejaculatory duct and balloon dilation of the ejaculatory duct to facilitate entry into the seminal vesicle. Transrectal injection of Methylene blue into the seminal vesicle has also been a helpful adjunctive technique to confirm proper location. With differing operative techniques described in literature, comparative trials are needed to elicit the optimal approach.

References:


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SRS Electronic Communications Committee Update
Zaraq Khan, M.D.

The SRS website has continued to deliver literature reviews and generate conversation regarding unique cases on the discussion boards. This summer/fall we are focusing on seminal contributions made in the field of endometriosis.

We are continuing to evolve and are in the process of partnering with the SART Electronic Communications Committee (ECC) to form a more robust group that can have representation in both SART and SRS. We are planning to re-vamp the SRS electronic presence by adding monthly case reviews and commentaries on the latest reproductive surgery related articles. We will be seeking volunteers to join the SRS Electronic Communications Committee as well. The hope will be to generate academic debate on surgical technique and share pearls of excellence. If you are interested in contributing surgical videos or literature reviews please email me, Zaraq Khan (khan.zaraq@mayo.edu) or Megan Miller (mmiller@asrm.org)

Zaraq Khan, M.D.
SRS Electronic Communications Committee Chair

Reproductive Surgery: The Society of Reproductive Surgeons’ Manual available now! Order your copy today!

The Society of Reproductive Surgeons (SRS) is excited to announce the publication of a handbook on which the Society collaborated, Reproductive Surgery: The Society of Reproductive Surgeons’ Manual. Authored by experts in operative gynecology and urology, the handbook serves as a key guide to understanding modern surgical procedures for female and male infertility.

Edited by SRS members, Drs. Jeffrey M. Goldberg, Ceana H. Nezhat and Jay Sandlow, the manual features step-by-step instructions illustrated with intra-operative photographs and surgical videos designed to increase physician confidence while providing readers with a comprehensive understanding of the indications, techniques, and outcomes of modern reproductive surgery in order to offer patients surgical options and avoid, or improve, IVF.

Reproductive Surgery: The Society of Reproductive Surgeons’ Manual is available from the publisher, Cambridge University Press, at www.cambridge.org. SRS members will receive a 35% discount on the purchase price of the manual by entering the code “SRS19” at checkout.
SRS established a 1-year fellowship program in minimally invasive reproductive surgery. The enthusiasm of REI fellows at the annual SRS Surgical Boot Camp and the favorable results of an online survey of REI fellows demonstrating their desire to obtain surgical training after REI fellowship were the impetus to develop this program. It is essentially a 1-year preceptorship with a high volume, master reproductive surgeon.

The following are the programs currently accepting applications for 2021-2022:

- Nezhat Medical Center, Atlanta, GA, Program Director: Ceana Nezhat, MD
- Camran Nezhat Institute, Palo Alto, CA, Program Director: Camran Nezhat, MD
- The Advanced Gynecologic Surgery Institute, Park Ridge, IL, Program Director: Charles Miller, MD

Since most REI fellows are not receiving adequate training in reproductive surgery, SRS has created this fellowship to provide them with the needed skills. It is our intention that graduates of the program will deliver excellent surgical care to their patients and will then teach these skills to their trainees to benefit the next generation of patients. Hopefully, they also will become actively involved with SRS to assure the future of reproductive surgery.

There is good evidence-based data showing that reproductive surgery is more cost-effective than IVF in many cases, and is often preferred by patients, as it is more “natural” than IVF. Reproductive surgery also is complimentary to IVF, as the surgical management of pelvic pathology can improve IVF results. It is unfortunate that many REIs have abandoned reproductive surgery or relegated it to general or minimally invasive gynecologic surgeons. Reproductive surgeons have a different skill set and approach to surgery, which could lead to improved outcomes. REIs who can operate are more “complete” physicians who can offer their patients all of the available treatment options.

Interested applicants for the Minimally Invasive Reproductive Surgery Fellowship can find information on the SRS website at https://www.reprodsurgery.org/about/fellowship-1. Interested preceptors also can find information on the website.