**Measurements and Main Results:** The outcomes of 50 pregnancies in women with one or two Essure® micro-inserts in situ were evaluated.
From the 26 unintended pregnancies after hysteroscopic sterilization with Essure®, 17 were electively terminated (Termination of Pregnancy, TOP) and nine resulted in the birth of a child. Seven pregnancies ended in a spontaneously vaginal delivery after an uncomplicated pregnancy. One patient delivered by Primary C-Section at 38+1 weeks because of breech presentation. Eight healthy babies were born.
In 15 patients Artificial Reproductive Treatments (ART) after closure of hydrosalpiges with micro-inserts, resulted in one biochemical pregnancy and 22 pregnancies confirmed by vaginal ultrasound In six patients a missed abortion was diagnosed between 6 -11 weeks. Two pregnancies ended in an immature delivery, three in a premature delivery including one twin pregnancy and 10 term deliveries. Six of these patients delivered by C-Section. Except the 2 fetal loss, all babies are doing well.
The patients with sterilization regret that were treated by IVF-ET both conceived after the first single embryotransfer. One delivered by a C Section at 40+3 weeks from a healthy boy of 3550 grams. The C-section was indicated due to fetal condition during labour. The other woman delivered spontaneously at 36 + 6 weeks of a healthy boy of 2570 grams.
**Conclusion:** Pregnancies with attendance of Essure® micro-inserts have a good prognosis and fetal outcome.

## 135 Open Communications 8—Reproductive Issues (4:08 PM — 4:13 PM)

### Surgical Treatment and Classification of Female Genital Anomalies

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**Study Objective: Objectives:** To evaluate differential diagnosis and optimize surgical correction of uterovaginal malformations and female patients with disorders of sex development.
**Design:** Methods: We had a systematic analysis of 1679 patients with various female genital malformations, operated since 1992 to 2013.
Clinical investigations included: general clinical examination, karyotyping, ultrasonography, MRI, laparoscopy, hysteroscopy, gonadal morphology investigation.
**Setting:** Russian Society of Gynecologic Endoscopists.
**Patients:** Uterovaginal anomalies had 1522 patients (46,XX karyotype):

- utero-vaginal aplasia (322) (MRKH syndrome) - creation of neovagyna performed by academician L Adamyan procedure, laparoscopic peritoneal colpopoesis
- uterus duplex (246), bicornuate uterus (210) - correction of other infertile factors,
- unicornuate uterus (145) - laparoscopic removing of rudimentary horn,
- partial vaginal aplasia (230) - vaginoplasty,
- cervico-vaginal aplasia (54) - hysterectomy of rudimental uterus in 34 cases, 17 patients underwent to reconstruction of cervical canal and creation of neovagina.
- septate uterus (315) - hysteroscopic metroplasty (dissection of septum).

**Intervention:** Creation of neovagina for 46,XY DSD patients (42) performed by L Adamyan's procedure - peritoneal colpopoesis.
**Measurements and Main Results:** Some patients had concomitant peritoneal adhesions (34%), intrauterine synechia (7%), endometriosis (23%), polycistic ovary (14%). Clinico-pathogenetic rehabilitation after surgical correction, allows to get pregnancy and successful delivery of 57% operated women.
157 female patients had various Disorders of Sexual Development (DSD): Creation of neovagina for 46,XY DSD patients (42) performed by L Adamyan's procedure - peritoneal colpopoesis.
**Conclusion:** We upgrade the clinico-anatomical classification after analysis of 1679 of female patients with various genital malformations and literature review.
The reconstructive surgical correction, assisted reproduction methods and pathogenetic treatment appears to improve reproductive outcomes of (46,XX) women with genital anomalies, even in some patients with gonadal dysgenesys and XY,DSD.

## 136 Open Communications 8—Reproductive Issues (4:14 PM — 4:19 PM)

### Hysterosalpingosonography for Diagnosing Tubal Occlusion in Subfertile Women: A Systematic Review with Meta-Analysis

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**Study Objective:** To determine the diagnostic accuracy of hysterosalpingosonography (sono-HSG) for diagnosing tubal occlusion in subfertile women and to compare it to hysterosalpingography (HSG).
**Design:** We conducted a systematic review with meta-analysis using an a priori protocol (Prospero #CRD42013003829). We searched Medline, Embase, Cochrane Library, Web of Science and Biosis, as well as references lists, citations and related articles. Diagnostic studies that compared sono-HSG to laparoscopy with chromotubation in women suffering from subfertility were eligible. If HSG was used as a comparator test, data were also collected. We excluded studies using non-random partial verification or not reporting results for each tube. There was no language restriction.
**Measurements and Main Results:** Two authors independently screened for inclusion, data extraction, and quality assessment. QUADAS-2 tool was used to assess methodological quality of studies. With SAS 9.3, we computed bivariate random-effects models to estimate pooled sensitivity and specificity with their 95% confidence intervals and generate summary ROC curves. Of the 3359 citations identified, 28 studies were eligible and included in the meta-analysis, representing a total of 2880 tubes. Pooled estimates of sensitivity and specificity for sono-HSG were 0.92 (95% CI 0.82 to 0.96) and 0.95 (95% CI 0.90 to 0.97), respectively.

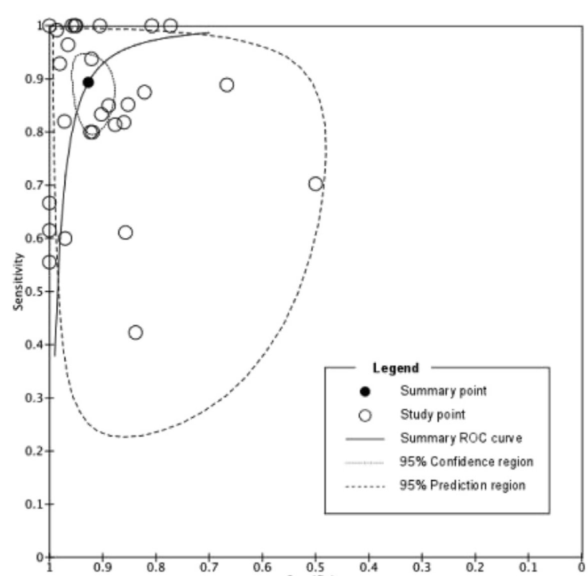


Figure 1. Summary ROC curve of sono-HSG compared to HSG for diagnosing tubal ocllusion

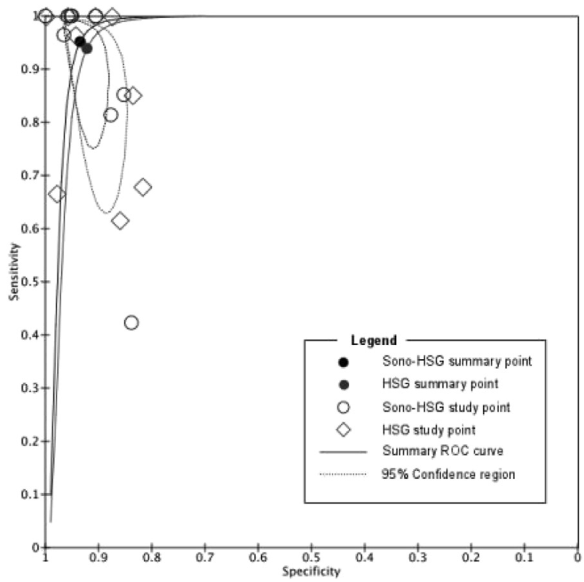


Figure 2. Summary ROC curve of sono-HSG compared to HSG for diagnosing tubal ocllusion

In 9 studies (1055 tubes), sono-HSG and HSG were compared leading to a sensitivity and specificity of 0.95 (95% CI 0.78 to 0.99) and 0.93 (95% CI 0.88 to 0.96) for sono-HSG and 0.94 (95% CI 0.74 to 0.99) and 0.92 (95% CI 0.87 to 0.95) for HSG.

The sensitivity analysis taking into account the methodological quality of studies was consistent with the findings.

**Conclusion:** Sono-HSG is accurate for assessing tubal patency. Given its benefits over HSG (detection of ovarian and uterine abnormalities; no radiation and risk of iodine allergy), sono-HSG should replace HSG in the investigation of infertile couples.

## 137 Open Communications 8—Reproductive Issues (4:20 PM — 4:25 PM)

### Hysteroscopic Resection of the Uterine Septum: Reproductive Outcomes

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**Study Objective:** to assess the efficacy and safety of operative resectoscopy of septate uterus.

**Design:** Retrospective Study.

**Setting:** Russian Scientific Center for Obstetrics, Gynecology and Perinatology named after V.I. Kulakov,
Moscow Russia.

**Patients:** 132 Patients (mean age 30.3 ± 3.8) with septate uterus were recruited.

**Intervention:** Transvaginal ultrasound scan was performed to evaluate pelvic anatomy and ovarian structure. Surgery was scheduled in early proliferative phase without pharmacologic preparation. The procedure was performed with a 26-Fr resectoscope fitted with a monopolar 90_-angle knife electrode and with a 0-degree telescope (Karl Storz, Tuttlingen, Germany). The electrical generator was set at 60-80Wpure cut current. The uterine cavity was distended with a solution (mannitol 5.4 p/v) at a constant inflow pressure of 60-90 mm Hg. The septum was incised across the apex from the lower margin, gradually reducing it with progressive upwards horizontal midline incisions until visualization of the muscular fibers. The procedure was considered to be complete when a normal cavity was obtained and the endoscope could be moved freely from one tubal ostium to the other. Postoperative follow-up consisted of an ultrasonographic and hysteroscopic examination performed 3 month after surgery. With the presence of a normal-shaped cavity, patients were asked to have unprotected sexual intercourse for the next 12 months. The reproductive results were followed and analyzed.

**Measurements and Main Results:** Postoperative diagnostic hysteroscopy after 3 months showed a normal-shaped cavity in all patients. Pregnancy rate before and after surgery was 4.5% vs 55.6% respectively ($p<0,05$). There was also significant difference in miscarriage rate (78.9% vs 23%), preterm births (29,6% vs 13,3%) before and after surgery.

**Conclusion:** Uterine septum is the most common uterine malformation and is associated with complex reproductive outcome; surgical correction of the anomaly significantly improves the pregnancy outcome. Furthermore, the issue whether the septate uterus is a cause of infertility is controversial.

## 138 Open Communications 8—Reproductive Issues (4:26 PM — 4:31 PM)

### Three Deliveries Post Micro-Organ Ovarian Transplantation: The Evolution from Animal Research to SILS and Robotic Surgery

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**Study Objective:** Describe almost 15 years of research leading to the development of micro-organ ovarian transplantation.

**Design:** Mouse, rat and sheep xeno and auto transplantation studies were performed to overcome ovarian tissue atresia. This has led to the possibility to offer fertility preservation to female patients at risk of premature ovarian failure.

**Setting:** The Hebrew university and Hadassah medical center Department of Obstetrics and Gynecology.

**Patients:** Collaboration between the departments of hematology, oncology, bone marrow transplantation (BMT), pediatric hemato-oncology and the infertility unit necessitated a solution for young female patients (n=149) facing premature ovarian failure following gonadotoxic chemotherapy in whom ovarian cryopreservation is performed.

**Intervention:** Since the 2010 AAGL congress, ovarian cryopreservation is performed via the single port laparoscopic surgery (SILS) approach. The application of, basic research derived, micro-organ method has rescued ovarian cortex from ischemic atrophy following transplantation to a pelvic peritoneal pocket adjacent to the right uterine salpinges. Recently, da-vincisurgical robot is applied for human ovarian auto transplantation.

**Measurements and Main Results:** Ovarian transplantation in 2 patients with advanced hodgkin's disease and one treated by BMT for thalassemia major has resulted in delivery of 3 healthy newborns.

**Conclusion:** The 3 human stories in our group of deliveries post frozen - thawed ovarian transplantation along with 25 similar cases internationally prove that this is no longer experimental medicine. We strongly believe that there is an ethical obligation of clinicians to offer fertility preservation and to discuss fertility issues with cancer patients or their parents, in order to provide the opportunity for future parenthood.

## 139 Open Communications 8—Reproductive Issues (4:32 PM — 4:37 PM)

### Essure Procedure: A Case Series in an Academic Setting

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**Study Objective:** To determine the rate of bilateral Essure (Conceptus, Mountain View, CA) coil placement in a university setting. Secondary outcomes included identification of reasons for incomplete procedures