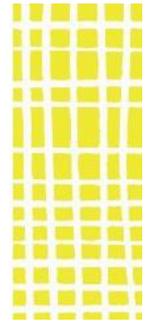


nCge 2019
H E L S I N K I

3rd Nordic Congress on Gynaecological Endoscopy
June 5-8 | 2019 | Helsinki | Finland



NCGE 2019 WORKSHOPS

Wednesday 5.6.2019

TLH step by step for specialists, Martin Rudnicki, Denmark and Jon Einarsson Iceland/USA

Current imaging techniques in gynaecology:

Pelvic imaging with CT and MRI, Hannastina Hasan, radiologist, Finland

Both CT and MRI provide cross-sectional images, but there are differences that make one the better option depending on the circumstances. Soft tissue resolution of pelvic organs is far more superior on MRI compared to CT, so when it comes to pelvic imaging, MRI is the modality of choice. When imaging with MRI, the protocol is always customized according to the indication. MRI is used for characterizing of indetermined pelvic masses. When a tumor can be identified as benign, surgery or invasive sampling may be avoided. This aids surgery planning of deep invasive endometriosis and malignant pelvic tumors by assessing the extent of the disease. Tumors may also be followed up with MRI. It provides great anatomic detail of pelvic organs and can be used for imaging congenital anomalies. Indications also include imaging during pregnancy (placenta and pelvimetry).

CT uses ionizing radiation which should be limited. It obtains three-dimensional data which can be reconstructed into stacked images in any plane desired. Indications for CT include tumor staging (distant metastases), acute pelvic or abdominal pain and postpartum complications.

Imaging of endometriosis, Kirsi Joronen, Finland

Imaging of adenomyosis, Margit Dueholm, Denmark

Ultrasound imaging in pelvic floor disorders, Sissel Oversand; Norway

Transperineal 3/4D ultrasound offers an accessible and dynamic tool for the evaluation of pelvic floor disorders including pelvic organ prolapse, urinary distress (bladder neck mobility, residual urine and detrusor wall thickness) as well as levator ani muscle function and integrity. Moreover, the technique allows visualizing transvaginal tapes and meshes for the evaluation of their

placement as well as identifying birth-related conditions traditionally evaluated by endoanal ultrasound such as obstetric sphincter ani injuries.

This lecture will summarize the basic setup and settings of 3/4D transperineal ultrasound as well as illustrate its main use in women with pelvic floor disorders.

IOTA methods to characterize adnexal masses as benign or malignant, Lil Valentin, Lund, Sweden

The International Ovarian Tumor Analysis (IOTA) collaboration started in 1997 (www.iotagroup.org). The aim of the collaboration is to develop and validate ultrasound methods that can help less experienced ultrasound examiners to discriminate between benign and malignant adnexal masses. The following methods have been developed: Logistic regression model 1 (LR1), logistic regression model 2 (LR2), the Simple Rules, the Simple Rules Risk calculation model (SRRc), and the ADNEX model. On prospective validation on thousands of patients all these methods have been shown to have excellent discriminative ability and to be clearly superior to the Risk of Malignancy Index (RMI). The ADNEX model does not only classify masses as benign or malignant but calculates the likelihood that a tumor is benign, borderline, stage I primary invasive ovarian malignancy, stage II-IV primary ovarian malignancy, or a metastases in the ovary from another primary tumor, e.g. breast cancer or colon cancer. The ADNEX model is well calibrated, i.e. there is good agreement between the calculated likelihood of a specific tumor type and the true prevalence of that tumor type. Educational material on the use of the IOTA methods is available at www.iota.education.

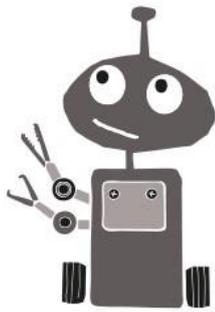
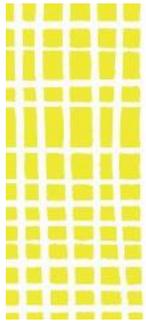
New and promising imaging technologies in gynecology, Paul van Kesteren, The Netherlands

Imaging by ultrasound, (PET)CT-scan and MRI has become invaluable in the diagnosis of gynaecological pathologies. Due to recent technological advances new modalities of these imaging techniques are available that optimize the visualisation and recognition of diseases such as Sono-elastography, 3D HD Live Silhouette ultrasound, DWI MRI and cine-MRI.

Nowadays, imaging is used not only for diagnostic purposes, but also for treatments such as High Intensity Focussed Ultrasound for uterine leiomyoma. Also, fluorescence-guided surgery might be useful for precise treatment of endometriosis and ovarian cancer.

Promising technologies such as augmented reality and image guided treatment with nanoparticles are awaiting clinical implementation.

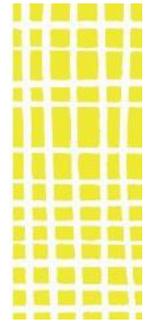
These and other new and amazing examples of imaging technologies will be presented and their clinical value will be discussed.



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NCGE 2019 PROGRAMME

Thursday 6.6.2019

Future of gynecologic surgery, Jon Einarsson, Iceland/USA

As gynecologic surgery continues to evolve rapidly, it is easy to forget the origins of our specialty. Only 205 years ago, Conrad Langenbeck performed the first planned hysterectomy on record. This was a vaginal hysterectomy that was performed in his living room with no assistants and he had to use his teeth at one point to tie suture. Miraculously the patients survived, but no one believed that Dr. Langenbeck actually performed this procedure until it was confirmed at autopsy several years later. In today's environment, the laparotomy approach is still overutilized, but it is now gradually being replaced by laparoscopic and robotic surgery. The original minimally invasive method, the vaginal hysterectomy, is slowly on the decline despite efforts to turn the tide. There is no question that a vaginal hysterectomy is a great minimally invasive approach, but the declining number of surgeons to teach this skill and the paucity of technological innovation in this space has left the vaginal hysterectomy wanting as compared with the laparoscopic approach. In this regard, other developments on the horizon, such as new robotic systems, augmented visualization and continued innovation will continue to move surgery forward and enable us to provide better and safer care for our patients.

Neuropelveology: A new approach to pelvic pain and dysfunction? Axel Forman, Denmark

Chronic pain is a common problem for all pelvic specialties. The structures are closely related and share a complex autonomous innervation, and the somatic, lumbosacral plexus may also be affected. Specified diagnosis requires a neurological approach, and neuropelveology is a new discipline where these principles are applied in cases of pelvic pain and neuromuscular dysfunction. A detailed patients' history represents the first step which leads to characterization of the pain as visceral or somatic. For visceral pain, localization is ill-defined with symptoms from multiple organs due to sensitization and pelvic organ cross-talk. Imaging and laparoscopy are typically needed for diagnosis and appropriate treatment. The primary pathology, such as endometriosis, should be treated but sensitization may lead to continued pain and principles like neuromodulation may represent the way forward. For somatic pelvic pain classic neurological examination often lead to a precise localization of the pathology and imaging is confirmatory.

Abdominal wall neuropathy is may be caused by troicarts in the iliac region and several therapeutic principles are available. Multiple therapies have also been proposed for pudendal neuropathy but this is an area with need for further development. Restauration of neuromuscular function in spinal cord injury may represent a future neuropelveological target.

A. PROLAPSE

Overview of prolapse surgery and meshes, Tomi Mikkola, Finland

Large body of clinical studies have shown that the use of synthetic mesh for pelvic organ prolapse repair generally improve objective anatomical outcomes and reduces the risk for prolapse recurrence compared to traditional suture repair. However, this does not appear to be the case in subjective patient satisfaction since the use of mesh significantly increases the risk for both short and long-term complications as compared to traditional surgery. Complications may be related to the surgical techniques but also the mesh itself. Due to the potentially serious complications and an increasing number of legal claims, medical authorities in countries such as United States and United Kingdom have published warnings about the use of mesh, and England has even suspended the use of all mesh products. Concern has been particularly with vaginal mesh products and future will show if they will remain as a treatment option in complicated prolapse surgery.

Vaginal approach to apical support without mesh, Huub van der Vaart, Netherlands

Robotically assisted laparoscopic approach to apical support without mesh, Martin Rudnicki, Denmark

For many years suspension of the vaginal vault has been controversial and many different surgical methods have been described, especially those including synthetic mesh have been popular. This includes both the vaginal and abdominal approach.

However, the FDA does not support the use of mesh due to the high rate of complications and the need for removal of the mesh due to erosions. So far only the use of mesh in case of sacrocolpopexy remains although vaginal mesh is also still commercial available. However, the use of mesh in in sacrocolpopexy may also be problematic especially if the synthetic mesh is tightened to much or the mesh due to shrinkage will elevate the vaginal vault to much thereby increasing the risk of defects in the anterior compartment.

The solution to this is not clear but both native tissue of suspension of the vault without mesh is possible. This will be discussed during the lecture

Effect of prolapse surgery on Quality of Life (FINPOP-study), Nina Mattsson, Finland

Our objective was to evaluate the effect of female pelvic organ prolapse (POP) surgery on health-related quality of life (HRQoL) and patient satisfaction and to determine predictors of surgery outcome. This prospective nationwide cohort study consisted of 3515 women undergoing surgery for POP in 2015. The

outcome was measured by validated HRQoL instruments (generic 15D, Pelvic Floor Distress Inventory PFDI-20, and Patient Global Index of Improvement PGI-I) at 6 months and 2 years postoperatively. Baseline predictors of surgery outcome were studied with logistic regression analysis.

In total, 2528 women were eligible for analysis at 6 months and 2351 at 2 years. We found that at the baseline, the general HRQoL was significantly lower in the study population compared to the age-matched population and a marked improvement was observed throughout the study period in sexual activity, discomfort and symptoms, and excretion. POP surgery improved HRQoL in seven out of ten patients over a 2-year follow-up. A total of 84% were satisfied with the surgery outcome and 90% reported an improvement in comparison to the preoperative state with PGI-I. Apical prolapse beyond the hymen and vaginal bulge were the most consistent predictors for improvement. Smoking increased the risk of an unfavorable outcome.

B. HYSTEROSCOPY

New developments in hysteroscopy, Mark Hans Emmanuel, The Netherlands

Rise and fall of Essure, Sebastian Veersema, The Netherlands

Treatment of retained products of conception, Espen Berner, Norway

The lecture focus on hysteroscopic treatment options for retained product of conception (RPOC), including video demonstrations of hysteroscopic resection and morcellation. In addition, the lecture discusses efficient preoperative evaluation and follow up of the of the condition. Furthermore, the lecture will give an overview of evidence-based medicine on treatment for RPOC and prevention of Asherman syndrome.

A. DEEP ENDOMETRIOSIS

Do doctors and patient speak the same language in deep endometriosis? Jeroen Metzemaekers, The Netherlands

Objective: We developed an objective web-based reporting system to improve uniform evidence based (big) data collection. The system is named EQUUSUM (QUality and grading instrument for SURgical perforMance in Endometriosis) and can be used worldwide.

The E-QUSUM provides electronic synoptic operative reporting (E-SOR) and easy staging/classification with r-ASRM and ENZIAN of (deep) endometriosis by anatomical pictures. Furthermore, the endometriosis fertility index (EFI) is incorporated for fertility advice after surgery. Goal: To study the accuracy of non-digital classification versus digital classification of endometriosis. Design: Prospective digital (E-QUSUM) versus paper classification of one hypothetical patient case. Materials and Methods: Test enrolled under endometriosis specialists. 18 cases were collected on paper and 10 cases web-based. The primary outcome was to compare the results of r-ASRM, ENZIAN and EFI score.

Results: r-ASRM was scored right in 0% in the non-digital version versus 60% on the digital method. For the ENZIAN it was respectively 50% correct versus 90%. With the EFI 20% was correct in the paper version versus 70% in the digital version.

Conclusion: Our study shows that not all exceptions rules are known under endometriosis specialist and that a digital system could simplify and improve the accuracy of classification of endometriosis.

It also shows that incorrect measurement has its impact on clinical relevant outcomes like wrong staging and different EFI score outcomes.

Overview of medical and surgical treatment of bowel endometriosis, Jörg Keckstein, Austria

Surgical removal of endometriosis in sacral nerves, Mikkel Seyer-Hansen, Denmark

Surgical removal of endometriosis in sacral nerves: Presentation of literature on the subject and personal experience with these patients including surgical videos.

B. ROBOTIC SURGERY

Training in robotic surgery, Henrik Falconer, Sweden

Robotic surgery in benign indications, Celine Lönnerfors, Sweden

The intent of robotic surgery should not be to replace traditional laparoscopic surgery but rather to offer minimally invasive surgery to patients previously operated by laparotomy. For benign surgery, no randomized studies have as of yet clearly identified patient groups in whom robotic surgery is either clinically or economically advantageous when compared to traditional laparoscopy. Suggested complicating factors motivating robotic surgery are extensive intraabdominal adhesions, severe endometriosis, large uteri, high burden of comorbidity and obesity. In addition, rare complex benign procedures such as surgery for genital malformations, resection of Cesarean scar pregnancies and extra genital ectopic pregnancies and removal of inadvertently placed mesh are procedures where the properties of robotic surgery are advantageous.

Complex hysterectomies, Martin Rudnicki, Denmark

Laparoscopic hysterectomy has during the last decade been the choice of procedure compared to the vaginal and abdominal approach. This is probably explained by visualization of the surgical field thereby having full anatomic view.

However, in some cases laparoscopy (robotic assisted or not) is complicated due to either endometriosis or fibroids.

Endometriosis is well-known to cause abnormal anatomy and thereby making it difficult to remove the uterus but this may also be the case if fibroids are present. The localization and intimate contact to the ureter and bowel may complicate the procedure. Also heavy bleeding may occur during myomectomy or removal of a large uterus, thereby calling for knowledge of vascular anatomy and even lateral occlusion of the uterine arteries.

In the current lecture we will discuss these problems especially in relation to myoma and a video will be used to demonstrate different approach to occlude the uterine artery.

Ergonomy in robotic surgery, Torur Dalsgaard, Denmark

Minimally invasive surgery is beneficial for the patients, but often the surgeons suffer. Earlier studies have documented that between 70 and 85% of surgeons, who regularly perform laparoscopic surgery, suffer from musculoskeletal symptoms, with direct association to case load. The worldwide, rapidly increasing implementation of robotic assisted laparoscopic surgery is controversial, mainly because of the high costs, but also because it does not imply obvious advantages for the patients, when compared with traditional laparoscopic surgery. On the other hand, the technique seems to offer several advantages for the surgeon, including the possibility of improving the physical working conditions. With the performance of more and more complex and lengthy endoscopic procedures, this could turn out to be a crucial enhancement. To elucidate this, we performed a study to evaluate and compare surgeon's workload for laparoscopic and robotic surgery in the real-life setting of an operating room with elective operations. The results will be discussed and suggestions for addressing these problems and for future optimization of ergonomics for both laparoscopic and robotic surgery will be put forward.



Friday 7.6.2019

B. INNOVATIONS

Tissue engineering: stem cells in prolapse and incontinence treatment, Kirsi Kuismanen, Finland

Anal incontinence (AI), urinary incontinence (UI) and pelvic organ prolapse (POP) can have a substantial impact on the quality of life and there is a need for novel approaches. Tissue engineering is a fairly juvenile branch of science that utilizes the principles of engineering and life sciences. The aim is to develop methods to replace damaged tissues and maintain and enhance the functional properties of organs. Regeneration requires cells, signaling molecules and biomaterial as a carrier, e.g. scaffold or hydrogel. Stem cells are considered the most potential cell source for tissue engineering. They are undifferentiated cells that are capable of proliferating indefinitely and able to differentiate into several pathways. The mechanism of action of stem cell therapy can also be a direct integration and differentiation into other cell types (e.g. muscle cells) or a paracrine function with trophic effect or immunomodulation. There are preclinical and a few clinical trials for the treatment of AI and UI. Especially for AI there is a lack of conventional treatments and there might be potential for an efficient and cost effective treatment method. For

UI and POP the techniques is still deficient, but the situation with synthetic meshes will probably enhance the development of novel techniques such as tissue engineering.

Augmented reality in surgery, an update, Hans Brölmann, The Netherlands

Augmented reality (AR) is defined by adding visual information to the perceived reality. It should be distinguished from virtual reality (VR) which offers only virtual images. Therefore the VR head mounted display is closed while the AR version is 'see through' mixing virtual and real images. In daily life augmented reality is booming from Pokémon Go to automatic translation of street signs (practical in China) to head up display in the windshield of new cars.

The number of articles about AR in medicine is growing exponentially since 2011 and exceeds 350 articles per year in 2018. The perspective of looking beyond the surface of tissue in particular during endoscopic surgery is exciting, however the technical problems are paramount. At first the images from CT or MRI should be converted ('modeled') into 3D images. Then the organs should be separated, a process mainly by hand by the radiologist that is called 'segmentation'. The major hurdle is the integration of the 3D images into the endoscopic view. If the view angle of the endoscope changes, the overlay of 3D image should change accordingly. In this way tumors and vascular trees have been overlaid in brain and liver surgery, but also fibroids in the uterus. As big companies such as Google and Microsoft are entering the AR health market, commercial availability is to be expected.

How to reduce hazardous implementation of new technologies in MIS, Frank Willem Jansen, The Netherlands,

A. FIBROIDS

Pathogenesis of fibroids, Paul van Kesteren, The Netherlands

The pathogenesis of uterine leiomyoma is largely unknown. Different environmental factors are modestly associated with leiomyoma growth and despite racial and familial predisposition the pathogenesis of fibroids is poorly reflected in genomic DNA alterations. Changes in the myometrial stem cell seem to be responsible for the initiation of leiomyoma growth. Two important cellular pathways, HMGA2 and MED 12, have been found to be affected in uterine leiomyoma and are causing abnormal growth and senescence of leiomyoma cells and increased formation of extra cellular matrix.

This presentation is on understanding the above and even more of the pathogenesis of fibroids.

Fibroids and fertility perspectives, Pia Suvitie, Finland

Fibroids are common in women of reproductive age, but they are rarely the sole reason for infertility. Majority of women with fibroids have normal fertility and pregnancy outcomes. Fibroids increase the risk of many obstetrical complications, but there is no evidence that treatments decrease these risks.

Because modern women are postponing their family plans, they more commonly have fibroids when stopping contraception. However, older age also increases the risk of miscarriage and infertility. When evaluating the impact of fibroids in women wishing to get pregnant or in cases of recurrent miscarriages or infertility, the woman's age, symptoms, fibroid type (FIGO), size and number should be considered.

Submucous fibroids impair IVF outcomes. They also likely increase the risk of miscarriage, although recent data adjusted with age showed no clear correlation. Removal improves spontaneous pregnancy rate, and removal of type 0 and 1 fibroids likely also improves IVF outcomes. However, there is no clear evidence, that intramural fibroids significantly impact fertility, and myomectomy should not be performed without a clear indication. IVF results are good in women with intramural fibroids. UPA may be considered as the sole treatment or before surgery, and MRIgFU may be considered in selected cases.

Conservative treatment of fibroids, Charlotte Møller, Denmark

Fibroids are very common, benign tumours of the uterus, causing heavy menstrual bleeding, infertility and pain. Expectant management, medical and surgical treatment are possible solutions depending on the patient's symptoms and fertility wish.

An overview of the literature on different conservative treatment options will be presented and discussed.

Surgical options in the treatment of fibroids: when and how? Andreas Thurkow, The Netherlands

B. FREE COMMUNICATIONS

1. Hormonal Support after Adhesiolysis in Women with Asherman's Syndrome: RCT and 1 Year Follow Up. Miriam Hanstede, The Netherlands
2. Asherman syndrome (AS) after long term use of a levonorgestrel containing IUD, cause or coincidence? Jan Molkenboer, The Netherlands
3. Combined endometrial resection and Levonorgestrel device treatment for heavy menstrual bleeding compared to transcervical resection. Pernille Haahr, Denmark
4. Association of cesarean scar defect with bleeding disorders; the results of a prospective study. Riitta Antila-Långsjö, Finland
5. Reproductive Outcome Following Ovarian Torsion. Amid Freud, Israel
6. The risk of endometrial cancer in patients with preoperative diagnosis of endometrial atypical hyperplasia. Marja-Liisa Eloranta, Finland
7. Video: Laparoscopic pelvic anatomy and sacrocolpopexy. Ignacio Miranda-Mendoza, Chile

8. Video: Bladder endometriosis nodule: De novo versus C-section scar implantation. Ignacio Miranda-Mendoza, Chile

A. CANCER

The impact of Minimally-invasive surgery in cervical cancer – Result from the Danish Gynecological Cancer database and attest literature, Tine Schnack, Denmark

Sentinel node in endometrial cancer, Jan Persson, Sweden

Do we still need lymphadenectomy in ovarian cancer? Jalid Sehouli, Germany

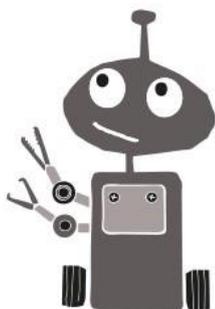
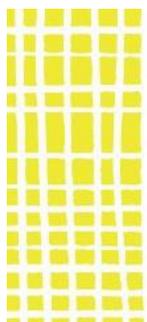
B. ISTHMIC NICHE

Symptoms and diagnosis of niche, Robert De Leeuw, The Netherlands

Laparoscopic niche resections and its indications and outcomes, Judith Huirne, The Netherlands

Hysteroscopic niche resection, Judith Huirne, The Netherlands

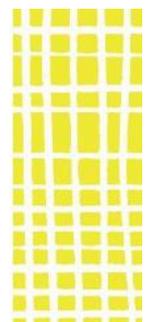
Niche pregnancies, Norah Van Mello, The Netherlands



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Saturday 8.6.2019

A. GYNAECOLOGICAL ANOMALIES

Classification and hysteroscopic treatment of uterine anomalies, Kirsten Hald, Norway

Uterine and vaginal anomalies are caused by defects in the development of the Mullerian ducts; Mullerian anomalies. Lateral defects are most common, often with no symptoms and no need for treatment, whereas transverse defects are rare, however almost always need treatment. Symptoms may be amenorrhea, pain, sexual and/or reproductive dysfunction.

There are several classification systems and no global consensus about which one to use. In 2013, ESGE and ESHRE agreed on a new classification system. Longitudinal uterine septum or bicorporal uterus are the most common lateral malformations. Indications for hysteroscopic resection of septum are recurrent abortions, long standing infertility and planned IVF. Diagnostic with 3D ultrasound or MRI is mandatory to be able to choose the right patients for surgery and to plan the surgical procedure. In patients with bicorporal or septate uterus, the outer lining of the fundus must be examined to look for indentation, as well as the thickness, length, vascularity and angle of septum. Hysteroscopic resection of a simple uterine septum is an easy procedure, preferably with use of cold scissor. Normally no postoperative adhesion prophylaxis is needed. More complex malformations, especially those that include transverse occlusion, usually requires an approach with combined techniques.

Robotically assisted laparoscopic treatment of uterine anomalies, Pétur Reynisson, Iceland/Sweden

The lecture is discussing the main indications of female genital malformation for robotic surgery with video demonstration.

Vaginal aplasia: introduction and conservative treatment, Elina Holopainen, Finland

Vaginal agenesis is most commonly seen in women with MRKH syndrome. In those cases women have a XX karyotype and normal functioning ovaries but an absent or a short vaginal dimple, and an absent or rudimentary uterus resulting from embryogenic failure of development of Müllerian duct. MRKH syndrome occurs in one in 5 000 female births.

Absent or short vagina can also be found in complete androgen insensitivity syndrome (CAIS). That is caused by a mutation in the androgen receptor gene resulting the body insensitive to testosterone and thus causing female phenotype with female external genitalia despite a 46 XY karyotype. Women with CAIS have testicular gonads, absent Müllerian structures, and a short vagina. CAIS occurs in one in 13 000 – 40 000 live births.

Patients with MRKH or CAIS typically present in adolescence because of primary amenorrhea. Due to absent uterus there is no need for reconstruction of an outflow tract for uterine bleeding. However, there are both surgical and non-surgical treatments available to lengthen the vagina and facilitate penetrative sexual intercourse. In most uncomplicated cases without previous perineal surgery, non-invasive, self-guided vaginal dilatation therapy is effective with high-success and low

complication rate. Appropriate timing and patient's motivation are essential for successful outcome.

Vaginal aplasia: surgical treatment, Sara Brucker, Germany

Genital malformations, neovagina, treatment of MRKH, uterine transplantation

Background: The prevalence of Müllerian anomalies (MA) in the female population is 0.2 to 0.5% whereas in patients suffering from infertility it is 3 to 13%. The rates for miscarriages and preterm births is higher in patients with uterine malformations. The Mayer-Rokitansky-Kuester-Hauser (MRKH) syndrome is characterized by vaginal and uterine aplasia in a 46,XX individual. It is one of the causes for absolute uterine infertility which can at least in some of the patients be treated by uterine transplantation. The etiology of MA is mostly unknown.

Material and Methods: Analysis of our own data- and biobank including over 600 patients with MA and review of the literature.

Results: MA are a heterogeneous group of diseases. In a large percentage of cases genital anomalies are associated with renal or skeletal malformations among others. Our data supports the hypothesis that MRKH syndrome has a multifactorial pathogenesis. After laparoscopically assisted neovaginoplasty during median follow-up for 16 (range 11-141) months, mean functional neovaginal length remained stable at 9.5 cm in a group of 240 patients, including those who had no sexual intercourse and had stopped wearing the vaginal dummy. Median total Female Sexual Function Index score was 30.0, comparable with similar-aged controls.

We reported on our experiences with two uterine transplantations and one attempt.

Conclusion: MA can be part of complex syndromes. Our laparoscopic technique creates a neovagina of adequate size and secretory capacity for normal coitus, requiring no prolonged dilation postoperatively. Uterine transplantation can be an option for MRKH patients to become parents.

B. FREE COMMUNICATIONS

1. Hysterectomy for benign indications provides benefit in health-related quality of life: A ten-year follow-up study, Päivi Rahkola-Soisalo, Finland
2. The effect of laparoscopic hysterectomy -module in virtual reality simulator on residents' first laparoscopic hysterectomy. Ewa Jokinen, Finland
3. Fertility after conservative and operative treatment of rectovaginal endometriosis: a retrospective study. Anni Tuominen, Finland
4. Discoid excision and colorectal segmental resection in symptomatic patients with deep endometriosis. Ignacio Miranda-Mendoza, Chile
5. Video: Myomectomy, barbed suture, and bag morcellation. Ignacio Miranda-Mendoza, Chile
6. Video: Interval laparoscopic cervicoisthmic cerclage. Ignacio Miranda-Mendoza, Chile
7. Video: Hysteroscopic metroplasty in a complete septate uterus with duplicated cervix. Ignacio Miranda-Mendoza, Chile

A. TISSUE EXTRACTION

Tips and trick and videos of tissue extraction, Jon Einarsson, Iceland/USA

Morcellation with or without a bag, Espen Berner, Norway

Tissue extraction and electromechanical morcellation during hysterectomy or myomectomy has been intensively debated recent years. Based on the current evidence-based research, the lecture discusses potential pros and cons of contained morcellation. Furthermore, the lecture will demonstrate different types of bags used for contained morcellation, including tips, tricks and pitfalls to use these endobags.

B. TRAINING

Nordic residents' opinion on surgical training, Emilia Holmström, Finland

The surgical training in OB/GYN and its unequal quality has been a hot topic among trainees across Europe for the last decade. What makes good surgical training? Why is this still an issue and what can we learn from our fellow Nordic countries?

Finnish gynaecological surgery training programme, Reita Nyberg and Ewa Jokinen, Finland

Training surgically competent gynaecologists has become challenging. During residency, it is difficult to gain enough operative experience to work independently in the OR. Concerns about the quality and equality of surgical training in Finland lead to founding of Surgical Trainers' Group in 2016. Since then, this group of dedicated educators has worked to improve the level of surgical training in Finland, to increase collaboration between training clinics and to formulate recommendations and guidelines for gynaecological training programme.

The logbook created by the Surgical Trainers' Group, is proficiency based, and the learning objectives are set for all three periods of training concerning both the procedures and non-technical skills. Objective Structured Assessment for Technical Skills (OSATS) form is recommended to use in feedback for trainees. The logbook has recommendations on hands-on training before working in the OR, as well as recommendations on literature, workshops and congresses.

Since Autumn 2017, the logbook has been piloted in Helsinki University Hospital. The implementation required time resources for both the trainer and the trainees, and one new simulator was purchased. In addition to procedural objectives, specific objectives were set for simulator training concerning both the pelvic trainer and the virtual reality simulator. Regular workshops are now organized in open suturing and knot tying, hysteroscopy, and laparoscopic electro-surgery.

Training Minimally Invasive Surgery for residents in the Netherlands: the reverse effect, Frank Willem Jansen, The Netherlands

COMPLICATIONS

Laparoscopic complications and videos, Sven Becker, Germany

Diagnosis and repair of gastrointestinal injuries, Piia Pulkkinen, gastrosurgeon, Finland

The benefits of laparoscopic versus open surgery for patients with benign and malignant disease have been well established. But besides the well-known risks of open surgery, laparoscopy carries its unique risks related to initial abdominal access methods, creation of pneumoperitoneum and use of special instruments and energy modalities. Furthermore the learning curve of laparoscopic operations can be lengthy. In order to minimize complications it is vital for the surgeons to learn about the possible complications and their management.

Bowel injury is a rare complication of gynecological laparoscopy (0.1-0.7%) but is a major source of morbidity and mortality. Up to 40% of bowel injuries are unrecognized at the time of surgery. Early recognition of bowel complications is important in order to decrease mortality and morbidity. The conventional laparotomy is still the most frequent approach to manage laparoscopy-induced bowel injuries (up to 80%). It is associated with numerous complications and the loss of benefits of the initial minimal access surgery. Laparoscopic approaches are increasingly being adopted in emergency settings with the advantages of improved short-term outcomes. Thus laparoscopic reoperation can be feasible in selected patients.

In this presentation the focus is on bowel complications in gynecological laparoscopy and their diagnosis and management.

Diagnosis and repair of urological injuries, Harry Nisén, urologist, Finland

The video presentation gives a short and practical guide how to identify and treat the most typical ureteral and bladder injuries during and after gynecologic operations. The role of intraoperative recognizing of injuries is stressed. After the operation the diagnosis of urological injury may be challenging. If suspected, CT-urography should be the primary investigation. The principles of operative correction of ureteral and bladder injuries are shown. Three interesting cases are presented.

Complications of prolapse surgery (FINPOP-study), Olga Wihersaari, Finland

INTRODUCTION: The objective of this study was to describe the major complications of pelvic organ prolapse (POP) surgery in Finland.

MATERIAL AND METHODS: FINPOP 2015 study is a prospective cohort of 3535 POP surgeries in Finland in 2015. Perioperative, postoperative and late complications during one-year follow-up were compared between native tissue repair (NTR), transvaginal mesh (TVM), and abdominal mesh (AM). Clavien Dindo (CD) grading system was used to assess major complications requiring intervention (grade 3a and 3b), life-threatening organ dysfunction (grade 4a and 4b) and death

(grade 5). The predictive factors for major complications were also studied with logistic regression analysis.

RESULTS: Of 3515 women participating in this study 348 (9.8%) had at least one complication. Majority of complications occurred within two months after surgery. Postoperative infection and bleeding/hematoma were the most frequent complications (4.8% and 3.8%, respectively). Organ lesions were rare: 10 bowel- (0.3%), 17 bladder- (0.5%) and 3 ureteral injuries (0.1%) were observed. Bladder and bowel injuries were more frequent in TVM and AM group compared to NTR. AM group had highest rate of perioperative reoperations due to complication (2.4% vs NTR 0.8% and TVM 0.2%, $p=0.018$). Altogether 3.3% women experienced major complications (CD grade 3-5. CD grade 3a complications were three times more common in the TVM group in comparison to NTR (OR, 95%CI 3.0, 1.5-5.6) and CD grade 3b were more common in AM group than in NTR (OR, 95% CI 3.5, 1.7-7.4). The rate of mesh-related complications did not differ between TVM and AM groups during 1-year follow-up (TVM 3.5%, AM 1.2%, $p=0.071$). Life-threatening complications were rare (0.4%) and no deaths occurred.

CONCLUSIONS: Serious adverse events were rare regardless of the operative approach. Abdominal and transvaginal mesh repair were associated with increased risk of major complication, however mesh-related complications did not differ between these groups.