



VLAAMSE VERENIGING VOOR OBSTETRIE EN GYNAECOLOGIE vzw

partner voor vrouw & vrouwenarts

in samenwerking met

## **Consilium van Hoogleraren Gynaecologie en Verloskunde**

Prof. Dr. Steven Weyers, UG, verantwoordelijke organisator

Prof. Dr. Herman Tournaye, VUB

Prof. Dr. Yves Jacquemyn, UA

Prof. Dr. Dirk Timmerman, KU Leuven

**ONLINE ASSISTENTENDAG – 29 april 2023**

**ABSTRACTENBOEK WEERHOUDEN ABSTRACTS**

**in volgorde van het programma**

In samenwerking met  
**Consilium van Hoogleraren Gynaecologie en Verloskunde**

# Online Assistentendag 2023

Zoom: <https://uzgent-be.zoom.us/j/99147910490>

Voorzitter: Steven Weyers, UGent

## 8' spreektijd + 4' discussie

- 08:55 Verwelkoming • [Steven Weyers, UGent](#)  
09:00 The effect of chemotherapy during pregnancy on neonatal blood count: a multi-centric retrospective study. • [Elisa Van Raemdonck, KU Leuven](#)  
09:12 Patient experiences of high-risk pregnant women using CTG telemonitoring • [Estelle Dehaene, UGent](#)  
09:24 Long term clinical significance of benign endometrial cells identified on routine cervical cytology in women aged more or equal to 45 years • [Justien Carpentier, VUB](#)  
09:36 Moving trends in cervical cancer screening: overscreening of adolescents and women under 25 years of age in Belgium • [Emilia François, VUB](#)

## 5' min spreektijd + 2' discussie

- 09:48 Follow-up op lange termijn na chirurgische resectie van diepe recto-vaginale en colonale endometriose: een retrospectieve multicentrische studie • [Perrine de Walque, VUB](#)  
09:55 Validation of the iota two-step strategy to diagnose adnexal malignancy and the risk of complications during conservative management in a screening population • [Lieze Vancraeynest, KU Leuven](#)  
10:02 Artificial intelligence in early pregnancy imaging: a systematic review • [Emma Umans, KU Leuven](#)  
10:09 Transvaginal uterine niche repair: surgical technique and first results • [Dorian Coppens, KU Leuven](#)  
10:16 Persistent nipt failure in a general risk obstetric population: causes and clinical relevance? • [Joke Van Camp, KU Leuven](#)  
10:23 Indications for administration of anti-D in the early pregnancy clinic • [Christine Burghardt, KU Leuven](#)  
10:30 Obstetrische complicaties bij obgyn arts-specialisten in opleiding en -specialisten in Vlaanderen • [Jolien Jansen, KU Leuven](#)

10:37 **Pauze**

Voorzitter: Joke Muys, UA

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11:07 Covid-19 en borstkanker • [Sam Van Melkebeek, UGent](#)  
11:14 Borstkankerscreening in België: wat na de leeftijd van 70 jaar? • [Paulien De Mulder, UGent](#)  
11:21 De rol van perorale GnRH-antagonisten in de medicamenteuze behandeling van uteriene myomen: een review • [Ellen Hylebos, KU Leuven](#)  
11:28 Een geïsoleerde rectovaginale scheur met intacte sfincter na vaginale partus: het belang van grondig rectovaginaal onderzoek – case report en literatuurstudie • [Jonas Balduyck, KU Leuven](#)  
11:35 Usefulness of antibiotic prophylaxis in miscarriage surgery for induced abortion and retained products of conception: a narrative review • [Leonore Cloet, KU Leuven](#)  
11:42 Leverruptuur bij een acute heelp – case report en literatuurstudie • [Alice Ameye, KU Leuven](#)

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12:01 Attempted vaginal delivery after cesarean section: success rates and room for improvement • [Nathalie Glorie, KU Leuven](#)  
12:13 EU border and asylum policies as a determinant of maternal and perinatal health in applicants for international protection • [Bavo Hendriks, UGent](#)  
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MET OPRECHTE DANK VOOR DE ONDERSTEUNING VAN:

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*Devos E<sup>1</sup>, Verheecke M<sup>2</sup>, De Catte L<sup>3</sup>*

# THE EFFECT OF CHEMOTHERAPY DURING PREGNANCY ON NEONATAL BLOOD COUNT: A MULTI-CENTRIC RETROSPECTIVE STUDY.

Van Raemdonck E<sup>1</sup>, Van Calsteren K<sup>1</sup>

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven

## **Purpose**

The primary aim of this study was to examine the effect of chemotherapy during pregnancy on the neonatal blood count, in relation to the timing, type and dose of the drug exposure. The secondary objective of this study was to evaluate the correlation between maternal blood count before delivery and neonatal blood count.

## **Patients and methods**

A retrospective observational multi-centric study was performed based on the International Network on Cancer, Infertility, and Pregnancy (INCIP) registry between 1998 and 2020. All neonates, whose mothers were treated with chemotherapy during pregnancy, with available results of the cord blood count and their mothers were included. Study data was analysed using SPSS (version 29.0.0.0), data is depicted as median or percentage. Pearson coefficient was calculated to evaluate correlation between two variables.

## **Results**

From the INCIP dataset, in January 2021, 84 neonates and their mothers fulfilled the inclusion criteria. The incidence of neonatal anemia, leukopenia, neutropenia and thrombocytopenia was respectively 20.2%, 4.8%, 4.8% and 7.1%. Risk factors for hematopoietic suppression (hemoglobin, white blood cells, platelets) were prematurity and a time interval <21 days between last chemotherapy and birth. The increased incidence of anemia was seen in patients treated with the ABVD (doxorubicin + bleomycin + vinblastine + dacarbazine) scheme, EC + T (epirubicin/cyclophosphamide with taxan) scheme and cisplatin. There were two neonates with severe transient myelosuppression, both mothers had acute lymphatic leukemia and were treated with the HOVON scheme (daunomycin + vincristine + methotrexate + asparaginase + cyclophosphamide). There was no correlation between maternal blood count levels before delivery and neonatal blood count levels.

## **Conclusion**

The overall risk of neonatal hematopoietic suppression after in utero exposure to maternal chemotherapy treatment is low in term born infants when a time interval of >21 days is respected between the last chemotherapy and the delivery. Severe myelosuppression was only seen with HOVON scheme. Maternal blood count levels before delivery didn't predict neonatal blood count levels.

# PATIENT EXPERIENCES OF HIGH-RISK PREGNANT WOMEN USING CTG TELEMONITORING

*Dehaene E, Vandenberghe G<sup>1</sup>, Roelens K<sup>1</sup>, Paters R<sup>2</sup>, Wassen M<sup>2</sup>*

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Gent, Gent

<sup>2</sup>Dienst gynaecologie – verloskunde, Zuyderland Medisch Centrum, Heerlen (Nederland)

## **Study aim:**

To explore the experiences of high-risk pregnant women using cardiotocography (CTG) telemonitoring.

## **Methods:**

It concerns a mixed-methods study: a retrospective analysis of medical records and a qualitative study of women's experiences during CTG telemonitoring. All patients who underwent CTG telemonitoring in Zuyderland Medical Center between May 2019 and December 2020 were included for retrospective analysis. SPSS® statistics version 21 was used for data analysis. Women using CTG telemonitoring in Zuyderland Medical Center between August 2020 and February 2021 were approached for the qualitative study. The qualitative data were collected through semi-structured interviews and analyzed using the software program Atlas.ti. The data analysis was performed using the grounded theory.

## **Results:**

Between May 2019 and December 2020, 92 women used CTG telemonitoring. Major indications for CTG telemonitoring were fetal growth restriction (59,8%), diminished fetal movements (19,6%) and preterm prelabor rupture of membranes (16,3%). The mean duration of CTG telemonitoring was 16,7 days (range 1-58 days) with a mean of 7 CTG's (range 0-27). The number of non-reassuring or non-conclusive CTG's, demanding extra hospital control, varied between 0 and 9 per patient, with a mean of 1,3. In most cases (64,8%), CTG telemonitoring was stopped because of delivery. 13,2% of women stopped remote monitoring for personal reasons. A total of ten women were interviewed. Saturation was reached after eight interviews. After analysis of the interviews, five core themes were described: 'equipment and functionality', 'quality of life', 'anxiety level', 'positive effects of CTG telemonitoring' and 'points of improvements of CTG telemonitoring'. CTG telemonitoring appeared to improve quality of life and lead to more relaxation and tranquility. The timesaving and money-saving effects, as well as being in your own environment are the main advantages. The experienced anxiety level is related to the CTG outcome. Women's experiences during CTG telemonitoring were closely related to the functionality of the monitoring equipment. Connecting issues due to Wi-Fi streaming, together with more flexibility in the planning of appointments, were mentioned as points for improvement.

## **Conclusions:**

CTG telemonitoring was associated with an overall positive patient experience regarding quality of life and anxiety levels in high-risk pregnant women.

# LONG TERM CLINICAL SIGNIFICANCE OF BENIGN ENDOMETRIAL CELLS IDENTIFIED ON ROUTINE CERVICAL CYTOLOGY IN WOMEN AGED MORE OR EQUAL TO 45 YEARS.

*Carpentier J<sup>1</sup>, Cosyns S<sup>1</sup>, Sahebali S<sup>2</sup>*

<sup>1</sup> *Department Gynecology-Oncology, UZ Brussel, Jette*

<sup>2</sup> *Department Pathology, UZ Brussel, Jette*

## **Objective:**

The recommendation of describing benign-appearing endometrial cells (BECs) within the Bethesda system changed over years. Reporting was only necessary in postmenopausal women but from 2001 on, pathologists were asked to report these cells in women from the age of 40 years. Since the 2014 revision, the presence of BECs in cervical cytology reports is essential from the age of 45 years. Recent studies have even suggested raising the reporting age to 50 years. Does the presence of these cells on cervical cytology necessitate further assessment for diagnosing endometrial pathology?

## **Study design:**

This retrospective cohort study included patients aged between 45 and 65 years if BECs were present on cervical cytology between 1 January 2001 to 31 December 2010. Exclusion criteria were simultaneously reporting BECs with abnormal cervical cells or atypical endometrial cells, a history of cervical or endometrial cancer and a history of hysterectomy. 145 full data sets were available with a follow-up at 5 and 10 years.

## **Results:**

During the follow-up period of 10 years, 86,9% had normal gynecological follow-up and 13,1% underwent a hysterectomy (94,7% for benign pathology and 5,3% for unknown reasons). 2 out of 145 patients (1,4%) were diagnosed with endometrial cancer. Both presented with postmenopausal bleeding and were aged over 60 years. One was diagnosed during the inclusion on the primary cervical cytology and the other was diagnosed during the follow-up period. 1 patient was taking hormonal substitution therapy and the other one took 1 year anti-hormonal therapy after breast cancer. No correlations were found with other patient characteristics.

## **Conclusion:**

We conclude that the presence of BECs is not a strong predictor for later endometrial malignancy. If ultrasonographic examination is normal, further assessment seems doubtful in the absence of postmenopausal bleeding. Postmenopausal bleeding was a strong clinical indicator for endometrial cancer in our study. Overall, we could state that the presence of BECs do not call for panic and we agree on raising the age of reporting BECs to 50 years.

# MOVING TRENDS IN CERVICAL CANCER SCREENING: OVERSCREENING OF ADOLESCENTS AND WOMEN UNDER 25 YEARS OF AGE IN BELGIUM.

*François E<sup>1</sup>, Makar A<sup>1,2</sup>, Desimpel F<sup>3</sup>, Van Kerrebroeck H<sup>4</sup>, Declercq S<sup>5</sup>*

*<sup>1</sup>Department of Gynaecology - breast clinic, ZNA Middelheim Hospital, Antwerp*

*<sup>2</sup>Department of Gynaecology, University Hospital Ghent, Ghent*

*<sup>3</sup>Department of Gynaecology, Iris South Hospital, Brussels*

*<sup>4</sup>Department of Gynaecology Ziekenhuis Oost-Limburg, Genk*

*<sup>5</sup>Department of Pathology, ZAS hospitals Antwerp, Antwerp*

## **Objective**

To describe the trends of cervical cancer screening of women under 25 in Belgium, and correlate these with the prevalence of follow-up examinations, cervical procedures and outcomes.

## **Methods**

Study of literature describing trends in cervical cancer screening in Belgium (2006-2019), based on data obtained from the National Health Insurance Institute and the Belgian Cancer Registry.

## **Results**

Between 2010 and 2019, 3 invasive cervical cancers were reported among women under 20, 2 clear-cell adenocarcinomas and 1 embryonal rhabdomyosarcoma. In women between 20 and 24, 26 invasive cervical cancers were diagnosed, of which 31% adenocarcinomas. To detect these, a total of 597,614 PAP-smears, 136,223 colposcopies, 18,571 biopsies and 5,605 conizations were performed.

This burdened the Belgian healthcare system with 42 million EUR. Furthermore, there is potential harm due to overscreening: besides physical discomfort and possibly adverse psychological effects, all excisional techniques increase the risk of preterm birth.

Following the restriction of Belgian reimbursement conditions in 2013, an important decline appeared in obtained PAP-smears in women under 25. In 2006, 16.8% of women under 25 underwent cervical cancer screening (104,959 PAP-smears); in 2019 the screening-rate was 6.6% (40,612 PAP-smears).

Additionally, an important decrease in colposcopies (52,545 in 2006, 5,547 in 2019), biopsies (from 2,111 to 1,530) and conizations (from 837 to 471) was seen. The cost to the Belgian healthcare system was still 3 million EUR in 2019 (compared to 6 million in 2006).

## **Conclusion**

The incidence of invasive cervical cancer in women under 25 is extremely low. Between 2010 and 2019 only 29 cervical carcinomas were diagnosed in this group. Considering the Belgian healthcare system paid 42 million EUR, one must acknowledge adverse effects of cervical cancer screening, such as physical discomfort, psychological effects and risk of preterm birth.

After the restriction of reimbursement rules, we noticed an important decline in the number of PAP-smears performed, followed by a decrease of follow-up examinations and invasive procedures. However, 3 million EUR of the healthcare budget was still dedicated to cervical cancer screening in 2019, although it is proven to be ineffective in the prevention of cervical cancer in women under 25.



# FOLLOW-UP OP LANGE TERMIJN NA CHIRURGISCHE RESECTIE VAN DIEPE RECTO-VAGINALE EN COLONALE ENDOMETRIOSE: EEN RETROSPECTIEVE MULTICENTRISCHE STUDIE

*De Walque P<sup>1</sup>, Fastrez M<sup>2</sup>, Simon P<sup>3</sup>*

*1Dienst gynaecologie – verloskunde, CHU Brugmann, Brussel*

*2Dienst gynaecologie – verloskunde, Erasmus Ziekenhuis, Brussel*

*3Dienst gynaecologie – verloskunde, Erasmus Ziekenhuis, Brussel*

## **Doel van het onderzoek:**

Diepe endometriose wordt gedefinieerd als de aanwezigheid van ectopisch endometriumweefsel ten minste 5 mm onder het oppervlak van het peritoneum. De enige effectieve behandeling van de symptomen is operatief: deze kan conservatief (rectaal shaven) of radicaal (colorectale resectie) zijn. Het doel van dit werk was allereerst, het analyseren van het recidiveren van symptomen en complicaties op lange termijn na chirurgische behandeling van diepe endometriose van het recto-vaginale septum. Secundair werden de percentages van recidief van symptomen en lange termijn complicaties vergeleken tijdens beide ingrepen.

## **Methoden:**

Retrospectieve studie uitgevoerd over een periode van 24 jaar, van 1997 tot 2021, multicentrisch over drie Brusselse ziekenhuizen (Erasmusziekenhuis, Universitair Ziekenhuis St-Pieters en IRIS-Zuid-ziekenhuizen).

## **Resultaten:**

Deze studie werd uitgevoerd bij in totaal 303 patiënten die werden geopereerd voor diepe endometriose van het recto-vaginale septum. Lange termijn complicaties traden op bij 35% van de patiënten en verschilden naar gelang het type operatie. Recidiverende symptomen werden vastgesteld bij 56,1% van de casussen. Een vermoeden van recidief was aanwezig op beeldvorming bij 20,4% van de patiënten, na een mediane follow-up tijd van 30 maanden. Een bijkomende ingreep was nodig in 9,6% van de gevallen, na een mediane follow-up van 61 maanden. De uitgevoerde techniek had geen significante invloed op het voorkomen van recidiverende symptomen, recidief op beeldvorming en bijkomende ingrepen.

## **Conclusies:**

De frequentste complicaties op lange termijn zijn stenose van de anastomose en abcesvorming met collectie. Langetermijn complicaties verschillen naargelang de uitgevoerde techniek. Wat betreft postoperatieve recidieven op lange termijn werd geen verschil vastgesteld tussen beide chirurgische procedures.

# VALIDATION OF THE IOTA TWO-STEP STRATEGY TO DIAGNOSE ADNEXAL MALIGNANCY AND THE RISK OF COMPLICATIONS DURING CONSERVATIVE MANAGEMENT IN A SCREENING POPULATION

*Pascual MA<sup>1</sup>, Vancraeynest L<sup>2,3</sup>, Timmerman S<sup>2,3</sup>, Ceusters J<sup>4</sup>, Graupera B<sup>1</sup>, Rodriguez I<sup>1</sup>, Valentin L<sup>5,6</sup>, Testa AC<sup>7</sup>, Bourne T<sup>2,8</sup>, Timmerman D<sup>2,3</sup>, Van Calster B<sup>2,9</sup>, Froyman W<sup>2,3</sup>.*

<sup>1</sup>*Department of Obstetrics, Gynecology, and Reproduction, Hospital Universitari Dexeus, 08028 Barcelona, Spain.*

<sup>2</sup>*Department of Development and Regeneration, KU Leuven, Leuven, Belgium.*

<sup>3</sup>*Department of Obstetrics and Gynecology, University Hospital Leuven, Leuven, Belgium.*

<sup>4</sup>*Laboratory of Tumor Immunology and Immunotherapy, Department of Oncology, Leuven Cancer Institute, KU Leuven, Leuven, Belgium.*

<sup>5</sup>*Department of Obstetrics and Gynecology, Skåne University Hospital, Malmö, Sweden.*

<sup>6</sup>*Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden.*

<sup>7</sup>*Dipartimento Scienze della Salute della Donna, del Bambino e di Sanità Pubblica, Fondazione Policlinico Universitario A. Gemelli, IRCSS, Rome, Italy.*

<sup>8</sup>*Queen Charlotte's and Chelsea Hospital, Imperial College, London, United Kingdom.*

<sup>9</sup>*Department of Biomedical Data Sciences, Leiden University Medical Centre, Leiden, the Netherlands.*

## **Objectives**

We aimed to evaluate the performance of diagnostic prediction models for adnexal masses on all patients with an adnexal mass detected in a large screening centre and to assess the risk of complications for benign looking adnexal masses that are managed conservatively in a screening setting.

## **Methods**

This monocentric prospective cohort study was performed in the framework of IOTA phase 5. Patients with adnexal masses were included in a screening setting (Hospital Universitary Dexeus Barcelona) irrespective of being managed surgically or conservatively. The main outcome was classification of the tumour as benign or malignant. The discriminative performance of the ADNEX model (without CA125) and the IOTA two-step strategy to distinguish between benign and malignant masses was assessed by evaluating the area under the receiver operating characteristic curve (AUC). Furthermore, in the group of patients with a benign looking mass selected for conservative management we evaluated the occurrence of spontaneous resolution or any mass complication during five years of follow-up.

## **Results**

Between June 2012 and September 2016, 2656 patients were recruited in the study. After application of exclusion criteria, 2038 patients were included for the validation of ADNEX and the two-step strategy. Of the 2038 patients, 1683 (82.6%) masses were benign, 49 (2.4%) masses were malignant and 306 (15.0%) were classified as uncertain. The AUC was 0.93 (95% CI 0.87-0.96) for the two-step strategy and 0.95 (95% CI 0.89-0.98) for ADNEX. 1471 patients had a benign looking mass managed conservatively, and were therefore included in the assessment of the risk of complications. The 5-year cumulative incidences of spontaneous resolution and surgery were 66.4% and 10.0%, respectively. Major complications found at surgery (i.e. invasive malignancy, borderline tumour, torsion and cyst rupture) each had a 5-year cumulative incidence of less than 0.3%.

## **Conclusions**

The IOTA two-step strategy and the ADNEX model perform well to distinguish benign from malignant adnexal masses in a screening population. The risk of mass complications is low and thus conservative management is a feasible and safe option for benign looking masses.

# ARTIFICIAL INTELLIGENCE IN EARLY PREGNANCY IMAGING: A SYSTEMATIC REVIEW

*Umans E<sup>1</sup>, Dewilde K<sup>2</sup>, Williams H<sup>3</sup>, Deprest J<sup>4</sup>, Van den Bosch T<sup>5</sup>*

<sup>1</sup> Department of Obstetrics and Gynecology, University Hospital Leuven, Belgium

<sup>2</sup> Department of Obstetrics and Gynecology, University Hospital Leuven, Belgium

<sup>3</sup> Department of development and regeneration, KULeuven, Belgium

<sup>4</sup> Department of Obstetrics and Gynecology, University Hospital Leuven, Belgium

<sup>5</sup> Department of Obstetrics and Gynecology, University Hospital Leuven, Belgium

## **Doel van het onderzoek:**

Ultrasonography in the first trimester of pregnancy offers an early screening tool to identify pregnancy location, multiple gestations, assess biometry, viability and detect fetal anomalies. Artificial intelligence (AI) algorithms have the potential to improve the accuracy of diagnosis and assist the clinician in early risk stratification. In this study, we elucidated the state of AI research on ultrasonography in the first trimester of pregnancy.

## **Methoden:**

We conducted a systematic literature review by searching in computerised databases Pubmed, Embase and Google Scholar from inception to March 2022. Full text peer reviewed journal publications written in English on the evaluation of AI in first trimester pregnancy imaging were included. Review papers, conference abstracts, posters, animal studies, non-English and non-peer-reviewed articles were excluded. Risk of bias was assessed by using PROBAST.

## **Resultaten:**

Of the 974 non-duplicated records screened, 17 studies were included. Nine studies focussed on segmentation, six on plane detection and two on image classification. 15 studies evaluated AI in late first trimester imaging and two in early pregnancy. The size of the dataset was relatively small, as thirteen studies included less than 1000 cases. The models were evaluated by different metrics, including accuracy scores, dice coefficient, Hausdorff distance and sensitivity/specificity. Duration to run the algorithm was reported in eight publications and ranged between less than one second and five minutes. No datasets were externally validated.

## **Conclusies:**

All included AI algorithms in first trimester imaging were developed and tested in a simulated research environment. Further research and collaboration between AI experts and clinicians is needed before implementation in clinical practice.

# TRANSVAGINAL UTERINE NICHE REPAIR: SURGICAL TECHNIQUE AND FIRST RESULTS

*Coppenrath D<sup>1</sup>, Van Kerrebroeck H<sup>2</sup>, Timmerman D<sup>3</sup>, De Jonge E<sup>4</sup>*

*<sup>1</sup>Dienst gynaecologie – verloskunde, ZOL Genk, Genk*

*<sup>2</sup>Dienst gynaecologie – verloskunde, ZOL Genk, Genk*

*<sup>3</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven*

*<sup>4</sup>Dienst gynaecologie – verloskunde, ZOL Genk, Genk*

## **Objectives:**

The object of this study is to verify the feasibility and safety of the transvaginal technique for uterine niche repair. Besides, we want to evaluate the effectiveness of this new innovative surgical technique by looking at the pregnancy outcomes in patients with secondary infertility, defined as patients with recurrent implantation failure or miscarriage. We will show how we executed this surgical technique in a descriptive video of a live surgical procedure in our hospital.

## **Methods:**

We will execute a retrospective single centre cohort study. All patients between 08-08-2019 and 07-06-2022 who underwent a transvaginal uterine niche repair in the hospital 'ZOL Genk' will be included. Besides the pregnancy ratio after surgery, the residual myometrial thickness of the preoperative and postoperative imaging will be compared to evaluate the effectiveness of the procedure. The perioperative and postoperative complications will be reported to evaluate the safety of the procedure.

## **Results:**

24 patients underwent a transvaginal uterine niche repair. 20 patients had a good postoperative myometrial integrity and 4 patients had a partial or complete postoperative recurrence of the uterine niche. The average pre-operative and postoperative myometrial thickness were respectively 1.7mm and 6.2mm. 60% of patients with a pregnancy wish became healthy pregnant after the transvaginal niche repair. There were no obstetrical complications reported. A descriptive video of a live surgical procedure was established.

## **Conclusion:**

A transvaginal approach is a safe and effective technique for uterine niche repair in patients desiring pregnancy. It offers good results in re-establishing the myometrial integrity and has favorable fertility outcomes. It represents a minimal invasive and scarless procedure which can be a good alternative for laparoscopic uterine niche repair. Besides it's an option for patients with a very thin residual myometrial thickness where a hysteroscopic repair cannot be performed safely.

## PERSISTENT NIPT FAILURE IN A GENERAL RISK OBSTETRIC POPULATION: CAUSES AND CLINICAL RELEVANCE?

*Van Camp J<sup>1</sup>, Lannoo L<sup>1</sup>, Koen Devriendt<sup>2</sup>, Kris Van den Bogaert<sup>2</sup>, Van Calsteren K<sup>1</sup>*

*<sup>1</sup> Department of Obstetrics and Gynaecology, University Hospitals Leuven, Leuven, Belgium*

*<sup>2</sup> Center for Human Genetics, University Hospitals Leuven - KU Leuven, Leuven, Belgium*

### **Objectives:**

to assess the presence of maternal characteristic and comorbidities in patients with persistent inconclusive NIPT and to evaluate the association between NIPT failure and adverse pregnancy outcome, both in a general risk obstetric population

### **Methods:**

We conducted a retrospective cohort study of women with two consecutive inconclusive NIPT results from samples sent to the genetic centre UZ Leuven, between July 2017 and December 2020. We compared maternal characteristics and pregnancy outcomes to the general Belgian obstetric population. Outcome measures included hypertensive disorder of pregnancy (HDP), pre-eclampsia (PE), small for gestational age (SGA), large for gestational age (LGA), preterm birth (PTB), gestational diabetes (GDM), start of labour, mode of delivery, major congenital anomalies, neonatal admission, previsible pregnancy loss and perinatal death.

### **Results:**

We included 148 patients with persistent inconclusive NIPT results in our study. 25% of those had a low fetal fraction, for the others the test was uninterpretable. There was more obesity in both groups and there was a high rate of maternal auto-immune disorders in the uninterpretable group. Information regarding pregnancy outcome was available for 94% of cases. Patients with persistent low fetal fraction had more hypertensive disorders of pregnancy, gestational diabetes and preterm birth and women with uninterpretable results had more hypertensive disorders of pregnancy, pre-eclampsia and preterm birth compared to the general Belgian obstetric population. There was no increased incidence of chromosomal abnormalities in both groups but there were more major congenital anomalies in the low fetal fraction group.

### **Conclusion:**

Patients with persistent NIPT failure have more maternal obesity, comorbidities and adverse pregnancy outcome than the general population and should receive high-risk pregnancy care. Making a distinction between a low fetal fraction group and an uninterpretable group seems to be useful to optimize counselling, because both maternal characteristics and comorbidities as well as pregnancy outcome differs between the two groups.

## INDICATIONS FOR ADMINISTRATION OF ANTI-D IN THE EARLY PREGNANCY CLINIC

*Burghardt C, Dewilde K, Van den Bosch T, Devlieger R*

*Dienst gynaecologie – verloskunde, UZ Leuven, Leuven*

### **Background:**

Haemolytic disease of the foetus and new born (HDFN) was a major cause of perinatal morbidity and mortality before the introduction of prophylactic use of anti-D immunoglobulin. Anti-D immunoglobulin is derived from human plasma. Although it is safe, it is scarce in some countries and poses an additional cost burden for the health care system. Therefore, it is important to identify those cases in which anti-D IgG administration is really necessary to avoid haemolytic complications in future pregnancies.

### **Objective:**

To conduct a comprehensive review of the literature regarding (1) the pathogenesis of rhesus (Rh) alloimmunisation and HDFN and (2) the indication and use of anti-D prophylaxis in early pregnancy complications.

### **Methods:**

A systematic literature review was conducted in PubMed, Embase, Medline, Cochrane library and Web of Science. Following medical subject heading (MeSH) terms were used: anti-D immunoglobulin AND (spontaneous abortion OR threatened abortion OR ectopic pregnancy). We identified 2033 articles. After deduplication and exclusion of studies irrelevant to our search, plus scrutinizing the reference lists for relevant studies, we reviewed 40 articles.

### **Results and conclusions:**

There is a lack of high-quality evidence supporting the use of prophylactic anti-D in first trimester complications. Consequently, there is a lot of heterogeneity in different guidelines about indication and use of anti-D IgG in early pregnancy in the world and even within Europe. The existing studies mostly encompass spontaneous and therapeutic abortions, very little is known about the risk of alloimmunization following ectopic pregnancies or molar pregnancies. These studies are mostly old (dating from the 1960s-1970s) and methodologically weak. The recent advances in quality and availability of ultrasonography for accurate dating and the fact patients usually present very early in pregnancy, should make it possible to responsibly reduce the use of anti-D in first trimester indications.

# OBSTETRISCHE COMPLICATIES BIJ OBGYN ARTS-SPECIALISTEN IN OPLEIDING EN -SPECIALISTEN IN VLAANDEREN

Jansen J<sup>1</sup>, Han SN<sup>1</sup>, Richter J<sup>1</sup>

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Leuven, KU Leuven, Leuven

## **Doel van het onderzoek:**

beschrijving van obstetrische complicaties bij OBGYN Arts-Specialisten in Opleiding (ASO) en -specialisten in Vlaanderen. Het primair eindpunt is het percentage complicaties tijdens zwangerschap, bevalling en postpartum. De secundaire eindpunten zijn het percentage vruchtbaarheidsproblemen en fertiliteitsbehandelingen, duur van borstvoeding en zwangerschapsrust.

**Methoden:** een retrospectieve cohortstudie gebruikmakend van een online vragenlijst werd uitgevoerd aan de KU Leuven van 22 september 2022 tot 18 december 2022. De huidige OBGYN ASO en -specialisten in Vlaanderen werden uitgenodigd om deze in te vullen. De bekomen resultaten werden vergeleken met de 'Perinatale gezondheid in Vlaanderen – jaar 2021' gegevens van het Studiecentrum voor Perinatale Epidemiologie (SPE).

## **Resultaten:**

19 (21.1%) participanten hadden fertiliteitsproblemen. 20 (25.3%) zwangerschappen kwamen tot stand na fertiliteitsbehandeling. Dit is statistisch significant verschillend (Fisher exact test p-waarde <0.00001) in vergelijking met het aantal zwangerschappen dat tot stand kwam na fertiliteitsbehandeling in de SPE controlegroep. Een totaal van 79 evolutieve zwangerschappen werd geregistreerd. 34 (43.0%) deelnemers hadden zwangerschapcomplicaties met in de top 3 preterme arbeid (22.8%), hypertensie (16.5%) en groei problemen (8.9%). 7 (7.8%) participanten hadden complicaties tijdens de bevalling: 6 participanten hadden een bloeding en 1 participant had een partiële solutio placentae. Het aantal kunstverlossingen en sectio's in de OBGYN groep is niet statistisch significant verschillend (Fisher exact test p-waarde 0.0858 respectievelijk p-waarde 0.1737) in vergelijking met de SPE controlegroep. 8 (8.9%) participanten hadden complicaties postpartaal: postpartumbloeding (2, 25.0%), placentarest (4, 50%), depressie (2, 25.0%), HELPP (1, 12.5%) en nierstenen (1, 12.5%). 76 (96.2%) moeders uit onze OBGYN groep gaven borstvoeding gedurende gemiddeld 22.9 weken (min 2 – max 156, SD 20.9), wat significant verschillend (Fisher exact test p-waarde 0.0001) blijkt in vergelijking met de algemene bevolking. In onze OBGYN groep bedroeg het zwangerschapsverlof prepartaal gemiddeld 2.6 weken (min 0 – max 23, SD 3.9) en postpartaal gemiddeld 13.1 weken (min 6 – max 28, SD 4.5).

## **Conclusies:**

1 op 5 zwangerschappen in onze OBGYN groep kwam tot stand na fertiliteitsbehandeling. Het percentage complicaties bleek het grootst tijdens de zwangerschap, doch ook per- en postpartaal werden belangrijke complicaties geregistreerd. Het aantal participanten dat borstvoeding gaf, bleek hoger dan gemiddeld.

# SURGICAL TECHNIQUE IN VISCERAL PERITONEAL DEBULKING FOR OVARIAN CANCER

[Waerlop F<sup>1</sup>](#), [Van Kerschaver O<sup>2</sup>](#), [Maertens V<sup>3</sup>](#), [Maertens H<sup>4</sup>](#)

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Gent, Gent

<sup>2</sup>Dienst algemene heelkunde, AZ Sint-Lucas, Gent

<sup>3</sup>Dienst algemene heelkunde, AZ Sint-Lucas, Gent

<sup>4</sup>Dienst thorax- en vaatheelkunde, AZ Sint-Lucas, Gent

## **Background:**

In literature there is no consensus concerning surgical technique in visceral peritoneal debulking (VPD) for ovarian cancer (OC). The aim of this abstract is to suggest a standardised VPD protocol.

## **Methods:**

A literature review was performed. The number of results for “((ovarian cancer[MeSH Terms]) AND (“surgical procedures, operative”[MeSH Terms])) AND (surgical technique[Title/Abstract])” was 83. The final selection yielded 12 corresponding papers. Additionally, a retrospective analysis was carried out of all surgical debulking procedures with HIPEC over an eleven-year period (2011-2022) in our centre. Primary outcome was surgical technique. Secondary outcomes were hospital stay, CA-125, postoperative complications and five-year mortality.

## **Results:**

Based on current literature, a standardised VPD protocol was suggested. The main arguments for a retroperitoneal approach are radicality, avoidance of vasculature and reduced spilling. However, none described a standardised order and only one article covered the entire abdomen.

A midline laparotomy is employed. The first step is a retroperitoneal en-bloc resection of the pelvis (EnBRP), removing the uterus, fallopian tubes, ovaries and rectosigmoid. As a common locus of metastases, the falciform ligament is resected. Then, omentectomy and diaphragmatic peritonectomy are carried out. Subsequently, focal lesions in the upper abdomen are excised, possibly including (partial) gastrectomy, splenectomy, cholecystectomy, appendectomy, or segmental intestinal resection. In case of capsular hepatic deposits, metastasectomy is done. The extensiveness of the visceral resection is limited only by surgical feasibility and the assessed patient outcome. Intestinal and mesenterial miliary laesions are fulgurated.

A total of 148 debulking with HIPEC procedures were analysed, of which 95 cases of OC: mainly primary interval debulking (n = 69), 22 relapsed cases and 4 upfront debulkings. Order of intervention varied widely. 4 cases employed EnBRP. The median CA-125 was 53.6 U/ml, the median hospitalised stay 14 days. The most common post-op complications were anaemia (n = 13), UTI (n = 11), pneumonia (n = 6). 55 cases reached the endpoint, accounting for a five-year mortality rate of 32.7% (n = 18).

## **Conclusion:**

A standardised order is needed to increase cross-comparability, as large studies are scarce. Furthermore, this could reduce the surgical learning curve and operative duration whilst aiding in macroscopic detection.



## COVID-19 EN BORSTKANKER

*Van Melkebeek S<sup>1</sup>, Makar A<sup>1,2</sup>*

<sup>1</sup>Dienst gynaecologie-borstkliniek ZNA Middelheim, Antwerpen

<sup>2</sup>Dienst gynaecologie UZ Gent, Gent

### **Doel van het onderzoek:**

Nagaan van de impact van COVID-19 op screening naar en diagnose van borstkanker. Alsook wordt de weerslag op mortaliteit van borstkanker onderzocht.

### **Methoden:**

Een literatuurstudie over de impact van COVID-19 op borstkanker wordt verricht. Studies die een projectie weergeven van de impact van COVID-19 op borstkanker worden geïnccludeerd. Vergelijkend onderzoek op data van de Nederlandse kankerregistratie wordt uitgevoerd.

### **Resultaten:**

Tijdens de 1<sup>e</sup> coronagolf is een daling in het aantal diagnoses: 1150 minder borstkankerdiagnoses ten opzichte van dezelfde periode in 2017-2019. Er was een afname van incidentie: in week 14 daalde het aantal met kanker gediagnosticeerde patiënten van 420 naar 220 (-52%). Gedurende de 2<sup>e</sup> golf is het aantal diagnoses te vergelijken met het aantal van 2017-2019. De borstkankerincidentie in 2020 bedroeg 12 971. In 2019 bedroeg deze 14 886. Vanaf 2021 bemerkt men een toename van de incidentie en bedraagt deze 15 681. In het voorjaar van 2020 bemerkt men een daling van diagnoses van DCIS en stadium I-II tumoren. In week 15 daalde het aantal met DCIS gediagnosticeerde patiënten met 52% en het aantal met een invasieve tumor met 54%. De detectie van hogere stadia (stadium III en IV) leken niet beïnvloed.

In een studie gepubliceerd in The Lancet werden 918 patiënten, gediagnosticeerd met zowel kanker als COVID-19, geïnccludeerd. Bij 20% was borstkanker aanwezig. 13% van de studiepopulatie stierven. Dit is het dubbele van het sterftecijfer voor alle mensen met COVID-19. Maringe et al. collecteerde data van 32 583 patiënten met borstkanker. Een toename van mortaliteit van 7.9-9.6 % wordt geschat. In een studie van Alagoz et al. wordt een projectie gemaakt van de impact van COVID-19 op de mortaliteit van borstkanker tussen 2020-2030. Tegen 2030 worden cumulatief 2487 extra sterfgevallen door borstkanker geschat. Hiervan zouden 950 gerelateerd zijn aan een verminderde screening, 1314 aan een vertraagde diagnose van symptomatische patiënten en 151 aan een verminderd gebruik van chemotherapie.

### **Conclusies:**

Het tijdelijk stopzetten van het bevolkingsonderzoek als gevolg van de pandemie heeft een negatieve impact op de doelgroep. Interruptie van borstkankerzorg heeft op lange termijn mogelijks een cumulatief effect op borstkankersterfte.

# BORSTKANKERSCREENING IN BELGIË: WAT NA DE LEEFTIJD VAN 70 JAAR?

*De Mulder P<sup>1</sup>, Makar A<sup>1,2</sup>*

<sup>1</sup>Dienst gynaecologie – borstkliniek, ZNA Middelheim, Antwerpen

<sup>2</sup>Dienst gynaecologie Universitair ziekenhuis Gent, Gent

## **Doel van het onderzoek:**

Borstkanker is de meest voorkomende vorm van neoplasie bij vrouwen. Meer dan één derde van de tumoren wordt gediagnosticeerd na de leeftijd van 70 jaar. Het Vlaams Bevolkingsonderzoek Borstkanker includeert vrouwen van 50-69 jaar in de tweejaarlijkse mammografie screening en wijkt daarmee af van andere Europese lidstaten die tot 75 jaar screenen (vb. Nederland). Door de stijgende levensverwachting en een almaar betere gezondheidszorg rijst de vraag naar uitbreiding van screening. Dit rapport verifieert de argumenten voor georganiseerde borstkankerscreening in de laag-risico populatie tussen 70 en 74 jaar.

## **Methoden:**

Deze paper omvat een literatuuroverzicht met de belangrijkste studiegegevens uit de klinische literatuur. Deze werden gekoppeld aan nationale gegevens uit het bevolkingsregister om een toegepast advies te formuleren voor de Belgische bevolking.

## **Resultaten:**

Screening in de leeftijdsgroep van 70-74 jaar leidt tot een risicoreductie van 1 tot 2 overlijdens per 1000 vrouwen over een termijn van 10 jaar. Vrouwen >75 jaar halen geen overlevingsvoordeel uit screening door de toename van niet-borstkanker gerelateerde sterfte. Screening biedt de mogelijkheid om ziekte vroeger op te sporen en minder agressieve behandeling (borstsparend) toe te passen. De voornaamste risico's zijn vals-positieven, overdiagnose en overbehandeling. Deze uiten zich op korte termijn. Borstkankers op oudere leeftijd hebben een gunstiger tumorprofiel met voornamelijk diagnose van laag-stadia tumoren. Daarnaast spelen nieuwe risicofactoren een rol (e.g. botmineraaldichtheid, obesitas) en wordt de geriatrische populatie gekenmerkt door een heterogeniteit aan comorbiditeit.

## **Conclusies:**

Observationele studies tonen een overlevingsvoordeel aan door borstkankerscreening voor patiënten tussen 70-74 jaar. De impact op de levenskwaliteit is echter onduidelijk. Het voorkomen van uitgebreide chirurgie en/of adjuvante behandeling leidt tot absolute winst in levenskwaliteit. Daarentegen zorgen vals-positieven en overdiagnose voor angst en onzekerheid. Hierdoor blijft screening tot op heden een geïndividualiseerde keuze waarbij rekening wordt gehouden met comorbiditeit, levensverwachting en patiëntenvoorkeur. De vraag naar georganiseerde screening bij ouderen wordt alsmaar relevanter gezien de stijgende levensverwachting. Gerandomiseerd onderzoek is nodig om de impact van bevolkingsscreening op mortaliteit, morbiditeit en levenskwaliteit nauwkeuriger te kunnen inschatten.

# DE ROL VAN PERORALE GnRH-ANTAGONISTEN IN DE MEDICAMENTEUZE BEHANDELING VAN UTERIENE MYOMEN: EEN REVIEW

Hylebos E, Van den Bosch T<sup>1</sup>

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven

## **Doel van het onderzoek:**

Uteriene myomen zijn veelvoorkomend en veroorzaken vaak invaliderende klachten bij premenopauzale vrouwen waaronder abnormaal uterien bloedverlies. In deze review worden de effecten, nevenwerkingen en indicaties besproken van de recent op de markt gekomen perorale gonadotrofine releasing hormoon (GnRH) antagonist elagolix en relugolix, alsook linzagolix. Ter modulatie van de hypo-oestrogene status werd een lage dosis oestradiol en norethisterone acetaat toegevoegd als add-back.

## **Methoden:**

Er werd op Pubmed een zoekactie uitgevoerd met de termen (GnRH antagonist) OR (relugolix) OR (elagolix) OR (linzagolix) AND (uterine leiomyoma) AND (uterine bleeding). Er werden 9 randomized controlled trials (4 over elagolix, 4 over relugolix en 1 over linzagolix) en 2 systematic reviews met meta-analyse geïnccludeerd.

## **Resultaten:**

Het primaire eindpunt was het aandeel vrouwen met minder dan 80 mL bloedverlies per cyclus en een afname van 50% tegenover het baseline volume bloedverlies. Toevoeging van add-back (1 mg estradiol en 0.5 mg norethidrone acetaat) had geen significant effect op de primaire uitkomst. Er was een significante response rate van respectievelijk 68.5-76.5% (versus 8.7-10% placebo), 71-73% (versus 15-19% placebo) en 75.5-93.9% (versus 29.4-35% placebo) voor cohortes die 6 maanden tweemaal daags 300 mg elagolix, eenmaal daags 40 mg relugolix en eenmaal daags 200 mg linzagolix (telkens met add-back) gebruikten. Na 12 maanden was dit respectievelijk 87.9%, 87.7% en 88-92%. Secundaire effecten op het volume van de uterus en de myoma zijn groter bij hoge doses zonder add-back. De uteriene volumereductie tegenover baseline varieerde van 20-40%. Ondanks daling van de 'fibroid burden' was bij elagolix het effect op de individuele myoma minder duidelijk. Bij relugolix en linzagolix was er een respectievelijke volumereductie van ± 30% en ± 45-50% van de grootste myoma. In de cohortes met add-back was er een volumereductie van ± 15%. Gebruik van GnRH antagonist verbeterde de levenskwaliteit en gaf een afname van myoma-gerelateerde pijnklachten. De meest gemelde neveneffecten waren hypo-oestrogeen (opvliegers, hoofdpijn en daling van botdensiteit). Deze werden verminderd door toevoegen van add-back.

## **Conclusies:**

GnRH antagonist zijn een nieuwe, veilige en effectieve behandeling voor myoma-gerelateerde bloedingsklachten met een positieve impact op de levenskwaliteit. Toevoeging van hormonale add-back vermindert hypo-oestrogene bijwerkingen.

# EEN GEÏSOLEERDE RECTOVAGINALE SCHEUR MET INTACTE SFINCTER NA VAGINALE PARTUS: HET BELANG VAN GRONDIG RECTOVAGINAAL ONDERZOEK – CASE REPORT EN LITERATUURSTUDIE

*Balduyck J<sup>1</sup>, Vander Donck E<sup>1</sup>, Claerhout F<sup>1</sup>, Logghe H<sup>1</sup>*

*<sup>1</sup>Dienst gynaecologie – verloskunde, AZ Sint Lucas Brugge*

## **Case-report:**

Een 32-jarige primigravida is gepland voor inductie op 39 weken zwangerschap omwille van zwangerschapshypertensie, behandeld met beta-blockers. Er is geen belangrijke medische of chirurgische voorgeschiedenis. De inductie gebeurt door middel van ballonkatheter (Cook-Ballon) en eenmalig intracervicale prostaglandines, waarna augmentatie van de arbeid met oxytocine intraveneus. De eerste en tweede fase van de arbeid verlopen vlot. Na 14 minuten persen volgt de geboorte van het hoofd in achterhoofdsligging en de schouders in 1 contractie. De neonaat wordt in goede conditie geboren (Apgarscore 9-10-10) met een geboortegewicht van 2686 gram. Er is geen nood tot geassisteerde bevalling en er wordt geen episiotomie geplaatst. Inspectie toont een eerstegraad perineumruptuur maar bij palpatio per anum (PPA) wordt een ruptuur van ongeveer 4 cm in het rectovaginale septum vastgesteld. Deze ruptuur (rectale en vaginale mucosa) wordt primair gesloten door de colorectale chirurg onder epidurale verdoving. Amoxicilline-clavulaanzuur intraveneus en laxativa worden postpartaal toegediend. Patiënte herstelt vlot en kan op dag 4 postpartum op ontslag. Bij postoperatieve controle is er een normale rectoscopie. Advies voor volgende partus is een primaire sectio.

## **Methoden:**

Systematische literatuurstudie op Medline via Pubmed omtrent de incidentie, risicofactoren en aanpak van rectovaginale scheur na vaginale partus.

## **Resultaten:**

13 case-reports/series beschreven 28 patiënten, waarvan 6 vacuümextracties, 4 forcepsverlossingen en 11 stuitbevallingen (waarvan 9 uit één case-serie). Bij 18 patiëntes werd een episiotomie geplaatst. Alle casussen behalve één werden primair gesloten via vaginale weg door zowel gynaecologen als colorectale chirurgen. Een standaardaanpak is beschreven in de literatuur maar de hechttechnieken blijven zeer divers. Er werden 2 complicaties beschreven: één rectale bloeding en één opengevallen wonde met noodzaak tot secundair herstel. Antibioticagebruik werd beschreven in 13 patiënten, laxativa werden toegediend in alle casussen. De incidentie op een rectovaginale ruptuur met intacte sfincter bedraagt ongeveer 0.06%. De beschreven risicofactoren zijn: geboortegewicht >4kg, nullipariteit, midline episiotomie, instrumentele partus, occiput posterior of stuitligging, snelle indaling en abnormale flexibiliteit van het septum door endometriose of aangeboren bindweefselaandoening.

## **Conclusies:**

Het belang van een grondig rectovaginaal onderzoek en PPA na vaginale partus blijft aangewezen. Een geïsoleerde rectovaginale scheur is een zeldzame complicatie die makkelijk te missen is met potentieel ernstige gevolgen.

# USEFULNESS OF ANTIBIOTIC PROPHYLAXIS IN MISCARRIAGE SURGERY FOR INDUCED ABORTION AND RETAINED PRODUCTS OF CONCEPTION: A NARRATIVE REVIEW

Cloet L<sup>1</sup>, Dewilde K<sup>1</sup>, Van den Bosch T<sup>1</sup>

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven

## **Doel van het onderzoek:**

To investigate the usefulness of prophylactic antibiotics in miscarriage surgery for retained products of conception and induced abortion and evaluate the antibiotic regimen of preference.

## **Methoden:**

A comprehensive electronic literature search was conducted using PubMed, MEDLINE and Google Scholar. There were no specific inclusion criteria concerning study design, publication year, language, or study population.

## **Resultaten:**

When evaluating the effectiveness of antibiotic prophylaxis for surgical intervention in induced abortion, 12 out of 19 studies showed a significant reduction on pelvic infection compared to the control group. There was no consensus regarding type and regimen of antibiotics. Five studies investigated prophylaxis in interventions for retained products of conception, of which 2 could show a significant effect.

## **Conclusies:**

There is evidence that antibiotic prophylaxis reduces the risk of pelvic infection. Single dose pre-operatively is favoured, for its effectiveness and patient compliance. Doxycycline and metronidazole are preferred, as for the type of antibiotics. There is limited evidence that antibiotic prophylaxis for surgical removal of retained products of conception or non-viable pregnancies might reduce the risk of pelvic infection.

	Antibiotic	Dose		Pelvic infection rates treatment group N(%)	Pelvic infection rates control group N(%)	Significance	p-value	Compared to
Brewer (1980)	doxycycline	500 mg	single dose	1/1519 (0,07%)	8/1431 (0,56%)	yes	< 0,05	placebo
Krohn (1981)	tinidazole	2 g	single dose	6/104 (5,77%)	11/106 (10,37%)	no	0,23	placebo
Sonneholm (1981)	penicilline G pivampicillin	2 million IU 3x 350 mg	pre- and postop for 4 days	14/254 (5,5%)	26/239 (10,9%)	yes	0,03	placebo
Weststrom (1981)	tinidazole	2 g	single dose	10/102 (9,8%)	17/110 (15,4%)	no	0,22	placebo
Krohn (1986)	sulbactam ampicilline	0,5 g 1 g	single dose single dose	4/145 (2,75%)	11/140 (7,86%)	no	0,053	placebo
Darj (1987)	doxycycline	400 mg	single dose	8/380 (2,11%)	24/387 (6,20%)	yes	0,0047	placebo
Levallois (1988)	doxycycline	300 mg	single dose	2/502 (0,40%)	15/497 (3,02%)	yes	0,001	placebo
Penney (1998)	metronidazole doxycycline	1g 2x 100 mg	single dose for 7 days	35/755 (4,64%)	54/791 (6,83%)	no	0,07	screen&treat
Heisterberg (1985)	metronidazole	3x 400 mg	pre- and postop	2/51 (3,92%)	10/49 (20,41%)	yes	0,012	placebo
Larsson (1992)	metronidazole	3x 500 mg	for 10 days	3/87 (3,03%)	11/87 (12,64%)	yes	0,001	placebo
Crowley (2001)	metronidazole	2 g	single dose	12/142 (2,11%)	21/131 (16,03%)	yes	0,0001	placebo
Sorensen (1992)	erythromycine	2x 500 mg	for 7 days	20/189 (10,59%)	30/180 (16,67%)	no	0,09	placebo
Nielsen (1993)	ofloxacin	400 mg	single dose	20/149 (13,42%)	27/159 (16,98%)	no	0,39	placebo
Henriques (1994)	ceftriaxone	2 g	single dose	4/108 (3,7%)	6/129 (4,7%)	no		standard treatment (ampicillin+metronidazole/ metronidazole+pivampicilline 3x/d for 4 days)
Henriques (1994)	ceftriaxone	2 g	single dose	02/275 (0,7%)	10/274 (3,6%)	yes	0,05	no antibiotics
Larsson (2000)	clindamycine	cremc	3 days pre-op	29/650 (4,46%)	30/626 (4,80%)	yes	0,77	placebo
Caruso (2008)	prulifloxacin	600 mg	1 day pre-op 2 days postop	4/158 (2,5%)	16/153 (10,5%)	yes	0,004	prulifoxaline 600 mg 3 days postop
Sawaya (1996)	NOS; meta-analysis			155/2587 (5,99%)	267/2601 (10,27%)	yes	< 0,0001	placebo
Low (2012)	NOS; Systematic review			203/3525 (5,75%)	330/3500 (9,43%)	yes	< 0,0001	

Table 1: Effectiveness of prophylactic antibiotics for induced surgical abortion

# LEVERRUPTUUR BIJ EEN ACUTE HELLP – CASE REPORT EN LITERATUURSTUDIE

*Ameye A<sup>1</sup>, De Keersmaecker B<sup>1</sup>*

*<sup>1</sup>Dienst gynaecologie – verloskunde, AZ Groeninge, Kortrijk*

## **Case report**

Een 28-jarige G2P1 patiënte wordt op 34 weken amenorroeduur via MUG-transport binnengebracht wegens recidiverend bewustzijnsverlies en hevige epigastrische pijn. Uit de voorgeschieden weerhouden we een zwangerschapsafbreking op 30 weken wegens anhydramnion op basis van gebruik van ACE-inhibitoren. Vanaf de conceptie werd methyldopa (500-250-500mg/d) opgestart met randnormale tensies van ca. 140/90mmHg. Bij opname was patiënte hemodynamisch instabiel met progressief dalende tensies en tekenen van foetale hypoxie. Patiënte vermeldt pijn epigastrisch en in het rechter hypochonder. Echografie toont een grote hoeveelheid vrij vocht intra-abdominaal met biochemisch laag hemoglobine (8.4g/dL) en een ernstige trombocytopenie ( $44 \times 10^9/L$ ). Gezien vermoeden van leverruptuur op basis van een acuut HELLP syndroom wordt een urgente sectio via mediane laparotomie uitgevoerd samen met de abdominale chirurgen. Peroperatief wordt een leverbloeding met massief hemoperitoneum vastgesteld waarvoor aanvullend een rechter hemihepatectomie wordt uitgevoerd. Zowel patiënte als baby kennen een opvallend vlot herstel, patiënte kan op dag 13 postoperatief op ontslag. Anatomopathologisch onderzoek van de placenta toont deciduale vasculopathie.

## **Methoden**

Literatuurstudie over de incidentie, behandeling en mortaliteit van leverruptuur bij acute HELLP

## **Resultaten**

De incidentie van HELLP bedraagt 0.5-0.9% van alle zwangerschappen. Leverruptuur is een extreem zeldzame, levensbedreigende zwangerschapscomplicatie met een incidentie van 1/40000 - 1/25000 zwangerschappen en ongeveer 1% van de patiënten met HELLP syndroom. Dit gaat gepaard met een zeer hoge mortaliteit, tot ongeveer 20% maternale sterfte en 35% foetale sterfte. Meestal vindt een leverruptuur plaats in het derde trimester, maar ook per- of zelfs postpartaal kan dit optreden. Bij een hemodynamisch onstabiele patiënt dient steeds een exploratieve laparotomie uitgevoerd te worden.

## **Conclusie**

Pre-eclampsie en eclampsie wordt vooral beschreven bij primipara. HELLP syndroom met leverruptuur is extreem zeldzaam en wordt meer bij multipara vastgesteld. Gezien het plotse en mogelijke lethale karakter van deze aandoening is een snelle diagnostiek fundamenteel. Pijn epigastrisch en in het rechter hypochonder en tekens van hypovolemische shock zijn de cardinale klinische tekens. Een snelle mediane laparotomie met verlossing van het kind, gevolgd door packing en/of hepatectomie door een ervaren multidisciplinair team van verloskundigen en hepatobiliaire chirurgen verhogen de kansen op overleving van moeder en kind.

# POSITIVE UROGENITAL CULTURES AND SPONTANEOUS PRETERM BIRTH IN WOMEN WITH CERVICAL CERCLAGE: A SINGLE CENTER STUDY

[Seys E, Devlieger R<sup>1,2</sup>, van der Merwe J<sup>1,2</sup>](#)

<sup>1</sup> Department of Obstetrics and Gynecology, Division Woman and Child, University Hospitals Leuven, Herestraat 49, 3000 Leuven, Belgium.

<sup>2</sup> Cluster Woman and Child, Department of Development and Regeneration, Group Biomedical Sciences, KU Leuven Herestraat 49, 3000 Leuven, Belgium.

## **Introduction:**

Urogenital infections play a causative role in spontaneous preterm birth (sPTB) in women with cervical insufficiency. We hypothesized a relationship between sPTB and positive (untreated) urogenital cultures in women with a transvaginal cervical cerclage.

## **Methods:**

This single center retrospective study reviewed the records of all women with singleton pregnancies that underwent transvaginal cervical cerclage between 2010 - 2020 at the University Hospital of Leuven, Belgium. Cerclages were categorized as history indicated (TVC I, n=94), ultrasound indicated (TVC II, n=79) and clinically indicated (TVC III, n=20). Midstream urine and cervicovaginal cultures were taken before and after cerclage with 4-week intervals. Data included maternal obstetric and gynecologic characteristics, antenatal and postnatal information.

## **Results:**

Stitch interval (TVC I 145±34d, TVC II 98±38d, TVC III 48±48d,  $p<0.01$ ) and gestational age (GA) at delivery (TVC I 253±40d, TVC II 247±39d, TVC III 199±49d,  $p<0.01$ ) were longer in TVC I. There was no difference in the incidence of precerclage urine (TVC I 5%, TVC II 10%, TVC III 5%,  $p=0.632$ ) and vaginal (TVC I 20%, TVC II 29%, TVC III 40%,  $p=0.232$ ) cultures or postcerclage urine (TVC I 13%, TVC II 15%, TVC III 10%,  $p=0.762$ ) and vaginal (TVC I 45%, TVC II 46%, TVC III 40%,  $p=0.965$ ) cultures. Positive precerclage cultures were associated with a shorter stitch interval only in TVC III (pos culture 23±38d vs. neg 64±47d,  $p=0.035$ ). GA at delivery did not differ by status of postcerclage cultures. In contrast, for TVC I GA at delivery was positively influenced by positive precerclage cultures (pos culture 267±26d vs. neg 249±42d,  $p=0.035$ ). Treating positive cultures did not change pre- or postcerclage outcomes.

## **Conclusions:**

There was a clear relationship between precerclage cultures and outcomes in TVC III. But our results show no benefit of routine cultures in TVC I and TVC II in reducing sPTB.

# ATTEMPTED VAGINAL DELIVERY AFTER CESAREAN SECTION: SUCCESS RATES AND ROOM FOR IMPROVEMENT

Glorie N<sup>1</sup>, Richter J<sup>2</sup>

<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven

<sup>2</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven

## **Objective:**

To determine factors that affect the success of vaginal birth after a cesarean section (VBAC) and assess any complications in the patient population at the University Hospital Leuven.

## **Methods:**

We conducted a retrospective observational study of all singleton deliveries between January 1<sup>st</sup> 2017 and December 31<sup>st</sup> 2020, where patients had one previous caesarean section (CS) in their history. A total of 794 women were included. A multiple logistic regression analysis was carried out to identify factors that affected the VBAC success rate. Maternal and neonatal outcomes were compared between the VBAC, failed trial of labor after CS (TOLAC), and elective repeat cesarean delivery (ERCD) group.

## **Results:**

A total of 313 women (39%) attempted a TOLAC and the success rate was 81.8%. A prior vaginal birth (OR 5.63,  $p < 0.001$ ), cervical dilatation  $\geq 4$  centimeters at admission (OR 2.87,  $p = 0.005$ ), and a pre-pregnancy BMI  $< 30$  (OR 2.82,  $p = 0.019$ ) were factors associated with successful VBAC. A prior CS for labor dystocia did not negatively impact the VBAC success, with still a success rate of 73.5%. Among the 481 women who underwent an ERCD only 25.8% had an absolute indication for CS. Women who delivered vaginally had less blood loss ( $p < 0.001$ ), but women after a failed TOLAC had a higher incidence of infectious diseases requiring antibiotics (15.8%,  $p = 0.006$ ) and overall adverse outcomes (28.1%,  $p = 0.002$ ). There is a higher incidence of newborns born with an umbilical arterial blood pH of less than 7.0 (7.3%,  $p < 0.001$ ) and neonatal sepsis (5.3%;  $p = 0.003$ ) in the failed TOLAC group. However, the overall risk of any serious adverse outcome was low. The incidence of uterine rupture is 0.38%, with good neonatal and maternal outcomes.

## **Conclusion:**

In our cohort, we found a high success rate of TOLAC with a low risk for most serious adverse outcomes. This information can be used to enhance counseling and might help lower the CS rate.



# EU BORDER AND ASYLUM POLICIES AS A DETERMINANT OF MATERNAL AND PERINATAL HEALTH IN APPLICANTS FOR INTERNATIONAL PROTECTION

[Hendriks B<sup>1,2</sup>](#), [Keygnaert I<sup>3</sup>](#), [Desmet E<sup>4</sup>](#), [Roelens K<sup>5</sup>](#)

<sup>1</sup>Correspondence: Department of Obstetrics and Gynaecology, ZNA Middelheim, Lindendreef 1, 2020 Antwerpen

<sup>2</sup>Master of Specialist Medicine: Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, Ghent University, Women's Clinic, Ghent University Hospital, Corneel Heymanslaan 10, 9000 Ghent

<sup>3</sup>Department of Public Health & Primary Care, International Centre for Reproductive Health (ICRH), Faculty of Medicine and Health Sciences, Ghent University, Corneel Heymanslaan 10, UZP114, 9000 Ghent

<sup>4</sup>Department of European, Public and International Law (RE22), Faculty of Law and Criminology, Ghent University, Universiteitsstraat 4, 9000 Ghent<sup>5</sup>Department of Human Structure and Repair, Faculty of Medicine and Health Sciences, Ghent University, Women's Clinic, Ghent University Hospital, Corneel Heymanslaan 10, 9000 Ghent

## **Aims:**

Health as a human right has been well established under international and EU law. The Common European Asylum System (CEAS) provides that applicants for international protection (AIP) are entitled to necessary healthcare. Yet, maternal and perinatal health inequities persist among AIP compared to their European host populations. As restrictive migration policies have repeatedly been linked to adverse migrant health outcomes, this interdisciplinary research project aims to explore how current EU border and asylum policies affect maternal and perinatal health in AIP and where healthcare providers can take their responsibility in defining and providing necessary antenatal care (ANC).

## **Methods:**

Following the critical interpretive synthesis (CIS) approach, a broad search strategy preceded a more structured literature search in both medical (PubMed, Embase/MEDLINE) and law databases (HeinOnline, KluwerLawOnline, EURLEX). Extracted quantitative and qualitative data were grouped under recurring themes, which were then integrated in the WHO Conceptual Framework for action on the Social Determinants of Health (CSDH) as structural and intermediary determinants of maternal and perinatal health in AIP. Aiming to define necessary ANC as a clinical concept, the AGREE II tool was used in reviewing existing clinical guidelines on routine ANC for low-risk pregnancies.

## **Results:**

Three recurring themes were identified as structural (global mobility infrastructure, transit, reception) and four as intermediary (sexual and gender-based violence, migration stress, access to care, continuity of care) determinants of maternal and perinatal health in AIP. Unequal access to the global mobility infrastructure, gendered transit policy effects and fragmented reception conditions contribute to migration related stress in AIP, increase their risk of experiencing sexual and gender-based violence and interfere with their access to and continuity of ANC. Clinical guidelines on routine ANC for low-risk pregnancies remain fragmented, complicating a clinical conceptualisation of necessary ANC.

## **Conclusions:**

Current EU border and asylum policies create and maintain maternal and perinatal health inequities in AIP. Healthcare providers' adherence to a patient-centred approach in defining and providing necessary ANC for AIP can prove to be of transformative potential in this implementation gap between migration management and health as a human right.

## FETAL BOWEL OBSTRUCTION. MONOCENTRIC STUDY OF SONOGRAPHIC FEATURES.

*Devos E<sup>1</sup>, Verheecke M<sup>2</sup>, De Catte L<sup>3</sup>*

*<sup>1</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven*

*<sup>2</sup>Dienst gynaecologie – verloskunde, AZ Turnhout, Turnhout*

*<sup>3</sup>Dienst gynaecologie – verloskunde, UZ Leuven, Leuven*

### **Objective:**

To describe the prenatal ultrasound features of different types of gastro-intestinal obstruction and to establish a flow chart to optimize the detection and differentiation of gastro-intestinal tract obstructions.

### **Methods:**

Cases diagnosed with a fetal gastro-intestinal obstruction prenatally and confirmed postnatally, were retrieved from the Astraia software of the Universital hospital of Leuven. Postnatal imaging and diagnosis were correlated with prenatal imaging and diagnosis to determine the accuracy of prenatal diagnosis by ultrasound. Data were analyzed using descriptive statistics.

### **Results:**

Fifty-two cases of gastro-intestinal obstruction were collected from January 2006 and April 2022. Duodenal atresia/duodenal obstruction, jejuno-ileal atresia and meconium ileus was diagnosed in respectively 48% (25/52), 21% (11/52) and 15% (8/52). Unspecified bowel dilatation, cloacal malformation and the presence of intra-abdominal cysts was described in respectively 4% (2/52), 6% (3/52) and 6% (3/52). Mean gestational age at prenatal diagnosis was 28,0 weeks (SD: 4,8) of pregnancy. The double bubble sign is a pathognomonic ultrasound feature of duodenal atresia/duodenal obstruction, seen in 100% (25/25) of the cases. Bowel dilatation was most frequently reported in jejuno-ileal atresia (89%; 8/9). Hyperechogenic bowel is the ultrasound feature most seen in patients with meconium ileus (92%; 11/12). The diagnostic accuracy for duodenal atresia or duodenal obstruction, jejuno-ileal atresia and meconium ileus was respectively 100%, 82% and 67%.

### **Conclusion:**

The diagnostic accuracy by ultrasound of gastro-intestinal obstructions remains low, except for duodenal atresia. Establishing clear definitions for abnormal ultrasound features, using the flow chart, and implementing fetal magnetic resonance imaging could help optimizing the prenatal diagnosis and improving the immediate postnatal care and long-term follow-up.