TURKISH ENDOMETRIOSIS & ADENOMYOSIS SOCIETY 2009

12th year 2009-2020

ENDOMETRIOSIS BULLETIN

APRIL 2021 / ISSUE XVII

WE WOULD LIKE TO EXPRESS OUR GRATITUDE TO ALL OUR HEALTHCARE PROFESSIONALS WORKING ON THE FRONT LINES

1 in 10 Women are Affected by Endometriosis

www.endometriozis.org

PREFACE

Hello,

We are with you again with our 17th issue.

While the Covid-19 pandemic and vaccine discussions continue all over the world, developments in the field of endometriosis continue. Every year, throughout the world and in our country, March is celebrated as **"Endometriosis Awareness Month"**. During this month, webinars, online patient Q&As and various events were organized by our society. You can find the details of these activities in this bulletin and on our website.

In this issue, the effects of endometriosis and assisted reproductive techniques on maternal and child health, the global trend of endometriosis in the last 30 years, the course of ovarian cancer in women with endometriosis, the description and effects of pain during sexual intercourse with the descriptions of patients with endometriosis, relationship between endometriosis and irritable bowel syndrome, a condition that can be neglected in the adolescent age group and finally, articles on the new #Enzian classification for physicians dealing with deep endometriosis surgery are summarized.

We continued our live webinars in 2021. In this context, on January 26th the webinar titled as **"Adenomyosis 2021: Update"** and moderated by **Yucel Karaman** and **Tolga Karacan** took place. In this webinar **Stefano Guerrero from Italy**, **Miklos Kappa from Hungary** and **Erkut Attar** from Turkey shared their experiences. Our 6th live webinar on **"Challenging Issue on Endometriosis and Fertility"** moderated by **Engin Oral** and **Cagdas Sahin** was held on February 23rd. **Edgardo Somigliana from Italy** and **Umit Inceboz** from Turkey joined us as lecturers. Last but not least, in March **Ghassan Lofti from UAE**, **Engin Oral** and **Ahmet Kale** from our country shared their experiences on **"Pelvic Pain 2021: Update"**, which was moderated by our president **Taner Usta** and **Fatih Durmusoglu**.

The 16th, 17th, 18th, 19th, 20th and 21st of the Instagram question-answer series, which we started during the pandemic, took place over the last three months with the participation of our esteemed faculty **Ahmet Kale, Fatih Durmusoglu, Cem Demirel, Cihangir Mutlu Ercan, Yılmaz Guzel** and the young group members of our association, **Onur Topcu, Bahar Yuksel Ozgor, Emre Pabuccu, Elif Cansu Gundogdu** and **Aysegul Bestel**.

At the **World Congress on Endometriosis**, which was held online between March 6 and 10, 2021, **Cihan Kaya** held two presentations.

The ESHRE Campus Workshop **'Adenomyosis: What we know, and we don't know?'**, organized by our society, was held on 12-13 March 2021 online due to the pandemic with a record number of participants and many international positive feedbacks.
Members of the board of directors of our society contributed both to the preparation of the meeting and the scientific program.

The webinar series organized by the **European Endometriosis League**, chaired by our founding president **Engin Oral**, continued between January and March with valuable presentations by **Joerg Keckstein, Gernot Hudelist** and **James English**. The webinar series will continue with monthly presentations until the end of the year. You can access the 2021 monthly webinar program from our bulletin.

In our next issue, we hope to share good news from all over the world and in our country.

Best regards,

Board Members of Turkish Endometriosis & Adenomyosis Society

Turkish Endometriosis & Adenomyosis Society Board of Directors 2019-2022

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Endometriosis e-bulletin is prepared by Turkish Endometriosis & Adenomyosis Society. If there are any topics that you would like us to include in the bulletin or any questions you would like to ask, you can contact us via e-mail at drcihankaya@gmail.com.

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A SELECTED ARTICLES

1 Endometriosis and assisted reproductive techniques independently related to mother-child morbidities: a French longitudinal national study

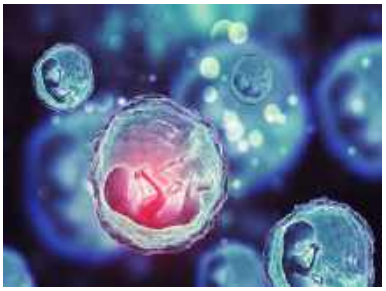
Epelboin S, Labrosse J, Fauque P, Levy R, Gervoise-Boyer MJ, Devaux A, Bergère M, de Vienne C, Jonveaux P, De Mouzon J, Pessione F. Reprod Biomed Online. 2021 Mar;42(3):627-633. doi: 10.1016/j.rbmo.2020.11.017.

Abstract

Research question: Does endometriosis increase obstetric and neonatal complications, and does assisted reproductive technology (ART) cause additional risk of maternal or fetal morbidity?

Design: A nationwide cohort study (2013-2018) comparing maternal and perinatal morbidities in three groups of single pregnancies: spontaneous pregnancies without endometriosis; spontaneous pregnancies with endometriosis; and ART pregnancies in women with endometriosis.

Results: Mean maternal ages were 30.0 (SD = 5.3), 31.7 (SD = 4.8) and 33.1 years (SD = 4.0), for spontaneous conceptions, spontaneous conceptions with endometriosis and ART pregnancies with endometriosis groups, respectively (P < 0.0001). Comparison of spontaneous conceptions with endometriosis and spontaneous conceptions: endometriosis independently increased the risk of venous thrombosis (adjusted OR [aOR] 1.51, P < 0.001), pre-eclampsia (aOR 1.29, P < 0.001), placenta previa (aOR 2.62, P < 0.001), placental abruption (aOR 1.54, P < 0.001), premature birth (aOR 1.37, P < 0.001), small for gestational age (aOR 1.05, P < 0.001) and malformations (aOR 1.06, P = 0.049). Comparison of ART pregnancies with endometriosis and spontaneous conceptions with endometriosis: ART increased the risk of



placenta previa (aOR 2.43, 95% CI 2.10 to 2.82, P < 0.001), premature birth (aOR 1.42, 95% CI 1.29 to 1.55, P < 0.001) and small for gestational age (aOR 1.18, 95% CI 1.10 to 1.27, P < 0.001), independently from the effect of endometriosis. Risk of pre-eclampsia, placental abruption or congenital malformations was not increased with ART.

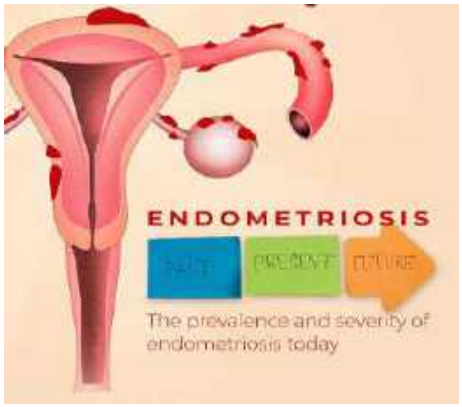
Conclusion: Endometriosis is an independent risk factor for mother and child morbidities. Maternal morbidity and perinatal morbidity were significantly increased by ART in addition to endometriosis; however, some perinatal and maternal morbidity risks were increasingly linked to pathologies related to infertility.

Keywords: Assisted reproductive techniques; Endometriosis; Maternal and perinatal morbidity; Pregnancy induced hypertension disorders; Premature birth.

2 Global, regional and national endometriosis trends from 1990 to 2007

Zhang S, Gong TT, Wang HY, Zhao YH, Wu QJ. Ann N Y Acad Sci. 2021 Jan;1484(1):90-101. doi: 10.1111/nyas.14468.

Endometriosis is a chronic inflammatory disease defined as the presence of endometrial tissue outside the uterus that causes pelvic pain and infertility. We used the Global Burden of Disease Study (GBD) 2017 to comprehensively analyze the burden of endometriosis between 1990 and 2017. DisMod-MR 2.1 was used to estimate the incidence and prevalence in some countries/territories with sparse or absent data. Annual percent changes were calculated to quantify endometriosis burden estimate trends. Furthermore, the sociodemographic index (SDI) was used to assess the relationship between endometriosis burden estimates and development level. Between 1990 and 2017, endometriosis age-standardized incidence and prevalence and years of life lived with disability (YLDs) decreased globally by 0.21% (95% confidence interval (CI): -0.23% to -0.20%), 0.29%



(95% CI: -0.31% to -0.28%), and 0.28% (95% CI: -0.30% to -0.27%) per year, respectively. Apart from the high SDI quintiles with increasing trends of endometriosis incidence rate, prevalence rate, and YLDs, decreasing trends were observed in all SDI quintiles for all burden estimates. In conclusion, it appears that all endometriosis burden estimates have decreased globally between 1990 and 2017. However, these results are based on limited data and highlight the need for increased data collection on the incidence and prevalence of endometriosis.

Keywords: disease burden; endometriosis; incidence; prevalence; years of life lived with disability.

3 Ovarian cancer prognosis in women with endometriosis: a retrospective nationwide cohort

Hermens M, van Altena AM, van der Aa M, Bulten J, van Vliet HAAM, Siebers AG, Bekkers RLM.Am J Obstet Gynecol. 2021 Mar;224(3):284.e1-284.e10. doi: 10.1016/j.ajog.2020.08.056.

Abstract

Background: Contradicting results regarding ovarian cancer prognosis in women with endometriosis have been reported in the liter- ature. Owing to the small sample size of previous studies, larger studies are required to elucidate the role of endometriosis in ovarian cancer prognosis.

Objective: This study aimed to evaluate the survival rate in women with ovarian cancer with or without histologically proven endometriosis in a Dutch population-based cohort.
Study Design: All women with ovarian cancer diagnosed between 1990 and 2015 were identified from the Netherlands Cancer Registry. We linked these women with the Dutch nationwide registry of histopathology and cytopathology (Pathologisch-Anatomisch Landelijk Geautomatiseerd Archief) to identify all women with histologically proven endometriosis. We compared the prognosis of patients with ovarian cancer with and without histologically proven endometriosis. Primary outcome was the overall survival with subgroup analyses stratified by histologic ovarian cancer subtype and stage. Multivariable Cox proportional hazard analysis was used to estimate hazard ratios with 95% confidence intervals.

Results: We included 32,419 patients with ovarian cancer, of whom 1979 (6.1%) had histologically proven endometriosis. The median age of histologic endometriosis diagnosis was 53 years (interquartile range, 46-62). Of all women with ovarian cancer and endometriosis, 81.2% received a diagnosis of synchronous endometriosis and ovarian cancer. The endometriosis cohort was younger at ovarian cancer diagnosis, had more favorable tumor characteristics, and more often had surgical treatment for ovarian cancer than the women without endometriosis. These variables

were included in the multivariable model as confounders. Women with histologically proven endometriosis had a significantly better prognosis in both crude and adjusted analyses (hazard ratio, 0.46; 95% confidence interval, 0.43e0.49; P<.0005, and adjusted hazard ratio, 0.89; 95% confidence interval, 0.83e0.95; P<.05, respectively).

Conclusion: Women with ovarian cancer and histologically proven endometriosis had longer overall survival than women with ovarian cancer without endometriosis, even after adjustment for confounders. Future studies on ovarian cancer treatment and prognosis should consider stratifying by endometriosis status to elucidate its role. Furthermore, women diagnosed as having ovarian cancer and concur- rent endometriosis should be explained the role of endometriosis in ovarian cancer survival.

Keywords: clear-cell ovarian cancer, endometrioid ovarian cancer, endometriosis, gynecologic oncology, prognosis, survival rate

4 Dyspareunia in their own words: A qualitative description of endometriosis-associated sexual pain

Wahl KJ, Imtiaz S, Lisonek M, Joseph KS, Smith KB, Yong PJ, Cox SM. Sex Med. 2021 Feb;9(1):100274. doi: 10.1016/j.esxm.2020.10.002.

Abstract

Introduction: Dyspareunia has been called the neglected symptom of endometriosis and is underexplored in clinical and research contexts. Understanding the physical experience and patient-important aspects of endometriosis-associated sexual pain can help advance valid measurement of this symptom.

Aims: The goal of this research was to characterize the physical experience of endometriosis-associated dyspareunia in the words of people affected by this condition.

Methods: This was a qualitative descriptive study that included participants with current or previous endometriosis-associated dyspareunia recruited from a data registry. Data collection involved semistructured interviews that began with an open-ended question about dyspareunia followed by prompts related to the nature of sexual pain.

Main outcome measures: Interviews transcripts were subjected to qualitative content analysis using a priori (pain site, onset, character, radiation, associations, time course, and exacerbating/relieving factors) and emergent themes.

Results: A total of 17 participants completed interviews. Mean participant age was 33.3 years and most were identified as white, college-educated, heterosexual, and partnered. Location, onset, and character were important; interrelated features of

endometriosis-associated dyspareunia were: (i) introital pain began with initial penetration and had pulling, burning, and stinging qualities and (ii) pelvic pain was experienced with deep penetration or in certain positions and was described as sharp, stabbing, and cramping. Dyspareunia ranged from mild to severe, had a marked psychosocial impact for some participants, and was managed using a variety of treatments and strategies.

Conclusion: The endometriosis-associated dyspareunia experienced by participants was heterogenous in presentation, severity, and impact. Our findings have implications for the development of valid patient-reported outcome measures of this symptom. Wahl KJ, Imtiaz S, Lisonek M, et al. Dyspareunia in Their Own Words: A Qualitative Description of Endometriosis-Associated Sexual Pain. Sex Med 2021;9:100274.

Keywords: Dyspareunia; Endometriosis; Patient-Reported Outcome Measures; Qualitative Research.

5 Overlap between irritable bowel syndrome diagnosis and endometriosis in adolescents

DiVasta AD, Zimmerman LA, Vitonis AF, Fadayomi AB, Missmer SA. Clin Gastroenterol Hepatol. 2021 Mar;19(3):528-537.e1. doi: 10.1016/j.cgh.2020.03.014.

Abstract

Background & aims: Gastroenterologic symptoms often are reported by adults with endometriosis, leading to unnecessary diagnostic tests or complicated treatment. We investigated associations between endometriosis and irritable bowel syndrome (IBS) in adolescents and whether concurrent pain disorders affect these.

Methods: We collected data from within The Women's Health Study: Adolescence to Adulthood, which is a US longitudinal study of premenopausal females with and without endometriosis. Our study cohort included participants younger than 21 years enrolled from 2012 to 2018. Participants completed an extensive health questionnaire. Those with IBS based on a self-reported diagnosis or meeting Rome IV diagnostic criteria were considered cases and

those without IBS were controls. Subjects without concurrent gastrointestinal disorders or missing pain data (n = 323) were included in the analyses. We calculated adjusted odds ratios using unconditional logistic regression.

Results: More adolescents with endometriosis (54 of 224; 24%) had comorbid IBS compared with adolescents without endometriosis (7 of 99; 7.1%). The odds of IBS was 5.26-fold higher among participants with endometriosis than without (95% CI, 2.13-13.0). In girls with severe acyclic pelvic pain, the odds of IBS was 35.7-fold higher in girls without endometriosis (95% CI, 4.67-272.6) and 12-fold higher in girls with endometriosis (95% CI, 4.2-36.3), compared with no/mild pain. For participants with endometriosis, each 1-point increase in acyclic pain severity increased the odds of IBS by 31% (adjusted odds ratio, 1.31; 95% CI, 1.18-1.47).

Conclusions: In an analysis of data from a longitudinal study of girls and women with and without endometriosis, we found significant associations between endometriosis and IBS, and a linear relationship between acyclic pelvic pain severity and the odds of IBS. Increased provider awareness and screening for IBS and endometriosis will improve patient outcomes and increase our understanding of these complex disorders.

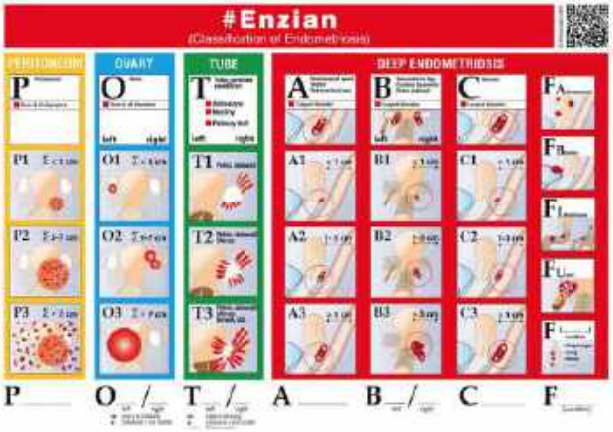
Keywords: Abdominal; Central Hypersensitization; Comorbidity; Mood Disorder.

6 The #Enzian classification: A comprehensive non-invasive and surgical description system for endometriosis.

Keckstein J, Saridogan E, Ulrich UA, Sillem M, Oppelt P, Schweppe KW, Krentel H, Janschek E, Exacoustos C, Malzoni M, Mueller M, Roman H, Condous G, Forman A, Jansen FW, Bokor A, Simedrea V, Hudelist G. Acta Obstet Gynecol Scand. 2021 Jan 23. doi: 10.1111/aogs.14099.

Abstract

Advances in preoperative diagnostics as well as in surgical techniques for the treatment of endometriosis, especially for deep endometriosis, call for a classification system, that includes all aspects of the disease such as peritoneal endometriosis, ovarian endometriosis, deep endometriosis, and secondary adhesions. The widely accepted revised American Society for Reproductive Medicine classification (rASRM) has certain limitations because of its incomplete description of deep endometriosis. In contrast, the Enzian classification, which has been implemented in the last decade, has proved to be the most suitable tool for staging deep endometriosis, but does not include peritoneal or ovarian disease or adhesions. To overcome these limitations, a comprehensive classification system for complete mapping of endometriosis, including anatomical location, size of the lesions, adhesions and degree of involvement of the adjacent organs, that can be used with both diagnostic and surgical methods, has been created through a consensus process and will be described in detail—the #Enzian classification.



Keywords: #Enzian classification; classification system; endometriosis; r-ASRM classification.

B NEWS FROM OUR SOCIETY

PAST ACTIVITIES

During these days with the ongoing COVID-19 pandemic and vaccine discussions, we continued our live broadcasts through our society's Instagram account and the questions of our patients were answered by our expert faculty. We will continue our live broadcasts, which has drawn the attention of our endometriosis patients over the past year.

Q&A 16: Everything about endometriosis
Prof. Cem Demirel, MD.
Aysegul Bestel, MD.

Q&A 17: Everything about endometriosis
Prof. Ahmet Kale, MD.
Elif Cansu Gundogdu, MD.

Q&A 18: Everything about endometriosis
Prof. Fatih Durmusoglu, MD.
Assoc Prof. Onur Topcu, MD.

Q&A 19: Everything about endometriosis
Assoc. Prof. Cihangir Mutlu Ercan, MD.
Assoc. Prof Bahar Yuksel Ozgor, MD.

Q&A 20: Everything about endometriosis
Assoc. Prof. Yilmaz Guzel, MD.
Ezgi Darici, MD.

Q&A 21: Everything about endometriosis
Prof. Ahmet Kale, MD.
Assoc. Prof. Emre Pabuccu, MD.

Turkish Endometriosis & Adenomyosis Society Webinars 2020

We continued our webinar series with **'Challenging Issues on Endometriosis and Fertility 2021'** on 23rd of February, 2021. **Edgardo Somigliana** and **Umit Inceboz** shared their experience, which was moderated by **Engin Oral** and **Cagdas Sahin**. The following webinar was held on 30th of March, 2021, and was titled as **'Pelvic Pain: An Update 2021'**. Moderated by **Taner Usta** and **Fatih Durmusoglu, Engin Oral, Ghassan Lofti** and **Ahmet Kale** shared their experience.

6- Challenging Issue on Endometriosis and Fertility

Moderators: **Engin Oral, MD.**
Cagdas Sahin, MD.

Speakers: **Edgardo Somigliana, MD.**
Umit Inceboz, MD.

7- Pelvic Pain: An Update

Moderators: **Taner Usta, MD.**
Fatih Durmusoglu, MD.

Speakers: **Engin Oral, MD.**
Ghassan Lofti, MD.
Ahmet Kale, MD.

ESHRE Campus Workshop

Adenomyosis: What we know, and what we don't know

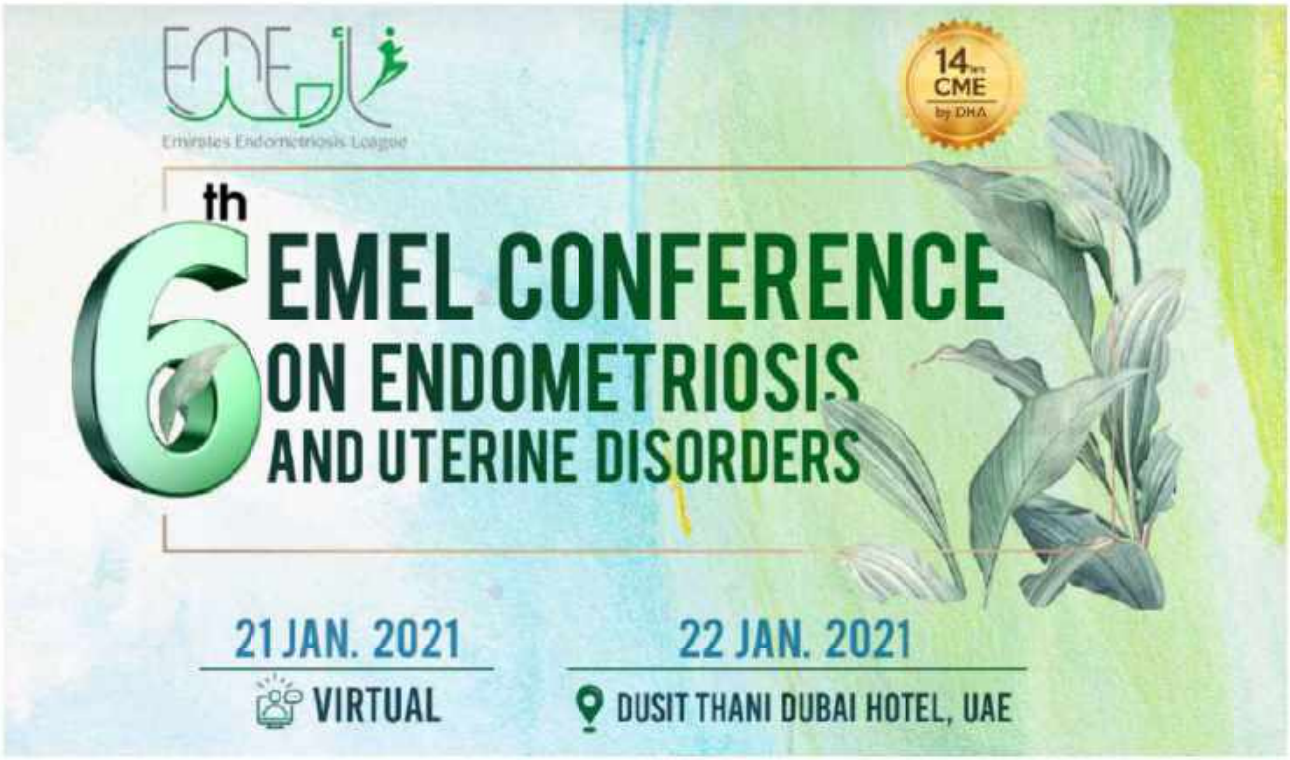
12-13 March 2021 | Virtual event

ESHRE Campus Workshop was held by our society on 12 – 13th of March, 2021. After the ESHRE Campus Workshop in 2016, which was in Istanbul, the second was held virtually due to the pandemic. "Adenomyosis: What we know, and we don't know?" ESHRE Campus Workshop was very productive, where a record number of participants and valuable international speakers were present, and updated information on adenomyosis management was shared in this interactive meeting. We hope to meet again in a new campus workshop in Istanbul when the pandemic is over.

ESHRE Campus Workshop

ESHRE Campus Workshop

6th EMEL Conference 2021



6th conference of EMEL (Emirates Endometriosis League) on endometriosis and uterine disorders, was held on 21-22nd of January, 2021, with contribution from our founding president and former president of European Endometriosis League, **Engin Oral.**

ENDOMARCH ACTIVITIES

ENDOMARCH activities are organized every year in March in order to increase the awareness on endometriosis worldwide. In this context, organizations, which were supposed to be held face-to-face, had to be moved to a virtual platform due to the COVID-19 pandemic. During March, informative publications on endometriosis were organized for our patients by our faculty and our volunteers.

The first of our March activities was the live broadcast "Patient Volunteer Group", which took place on Wednesday the 3rd of March on our Instagram account and was hosted by three strong women who are fighting endometriosis and who voluntarily work with our society to raise awareness.

YOGA FOR ENDOMETRIOSIS

A short yoga practice, meditation and breathing exercise was carried out in this event, where the positive effects of endometriosis and yoga on women's health were discussed within the scope of EndoMarch activities. Our president **Taner Usta** and our board member **Cihan Kaya** talked about endometriosis and treatment options. **Yoga Instructor Sevgen Bengi Kıran,** on the other hand, talked about the positive effects of meditation and breathing exercises on pain and anxiety and performed a short, holistic yoga therapy practice that can easily be practiced at home.

Basak Gurbuz, one of our society's volunteers and an endometriosis patient herself, filmed a short video where she told her own experience with the disease. This video was shared by Worldwide Endomarch team as a part of the **#VirtualEndomarch2021.**

Our founding president **Engin Oral** gave an interview on Instagram to Alem Magazine, about EndoMarch, endometriosis and women's health.

A short awareness video has been prepared for our patients by the physicians in the junior group of our society. We thank the junior team of the Turkish Endometriosis & Adenomyosis Society for their contribution!

Assoc. Prof. Bahar Yuksel Ozgor, MD, Isik Sozen, MD, Assoc. Prof. Onur Topcu, MD, Assoc. Prof. Tolga Karacan, MD, Salih Yilmaz, MD, Ezgi Darıcı, MD, Gulfem Basol, MD, Isil Ayhan, MD, Elif Goknur Topcu, MD, Eda Ureyen, MD, Tugba Buket Caliskan, MD, Nilufer Cimsit, MD, Humeyra Demirkiran, MD, Seher Sari, MD, Assoc. Prof. Cagdas Sahin, MD, Aysegul Bestel MD, Assoc. Prof. Aytac Tohma, MD, Sebnem Alanya Tosun, MD, Nilufer Akgun, MD, Aslihan Degioglu, MD, Merve Didem Eksin Tanriverdi, MD, Firat Buyuktaskin, MD, Karolin Ohanoglu, MD, Assoc. Prof. Emre Pabuccu, MD, Aysegul Mut, MD, Elif Cansu Gundogdu, MD, Assoc. Prof. Hale Goksever Celik, MD, Assoc. Prof. Cihan Kaya, MD, Assoc. Prof. Pinar Yalcin Bahat, MD, Fitnat Topbas Selcuki, MD

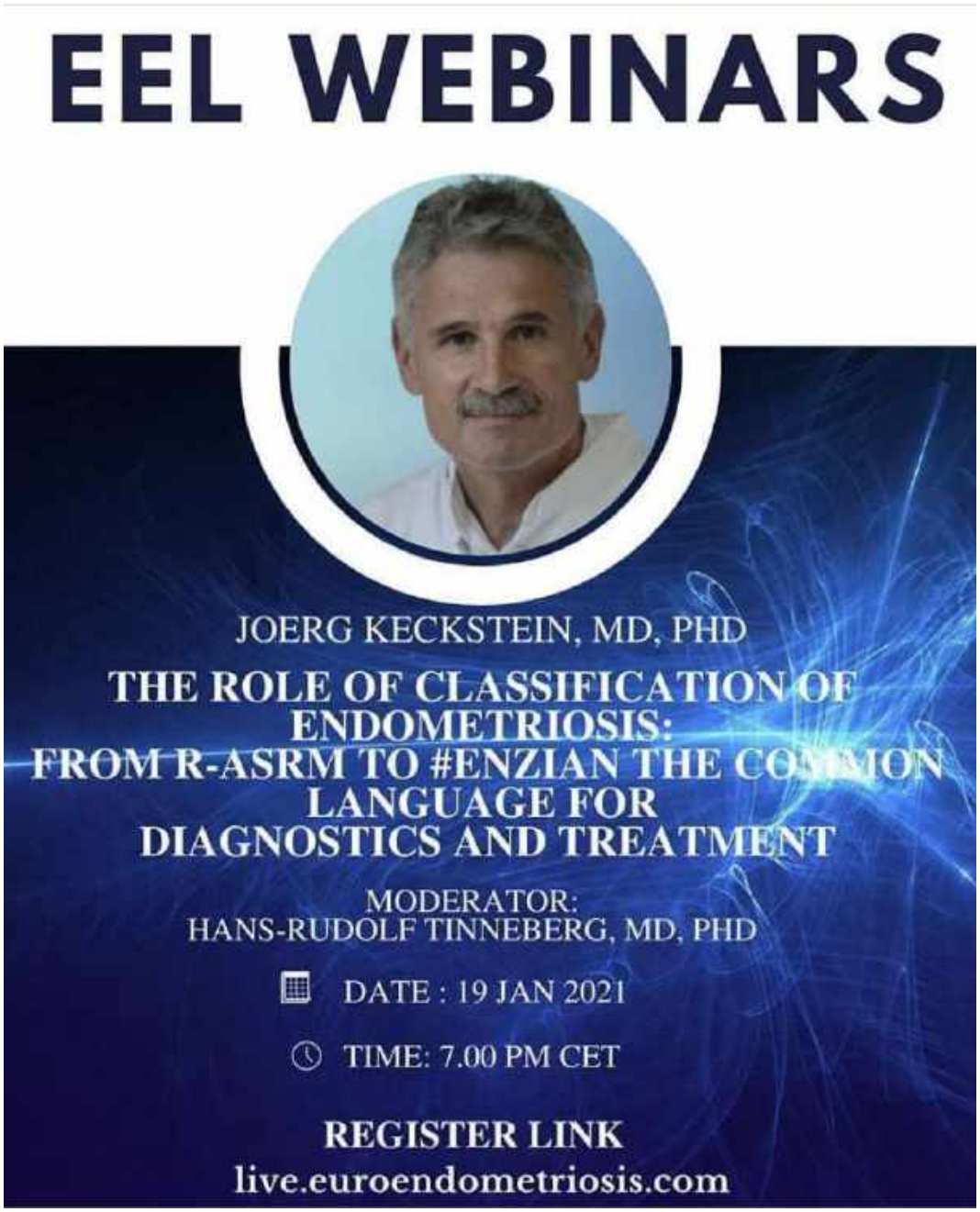
C NEWS FROM THE WORLD OF ENDOMETRIOSIS

EEL WEBINAR

Monthly webinars of European Endometriosis League (EEL) continue in 2021. In monthly scheduled webinars, international endometriosis experts will share their experience on different subjects.

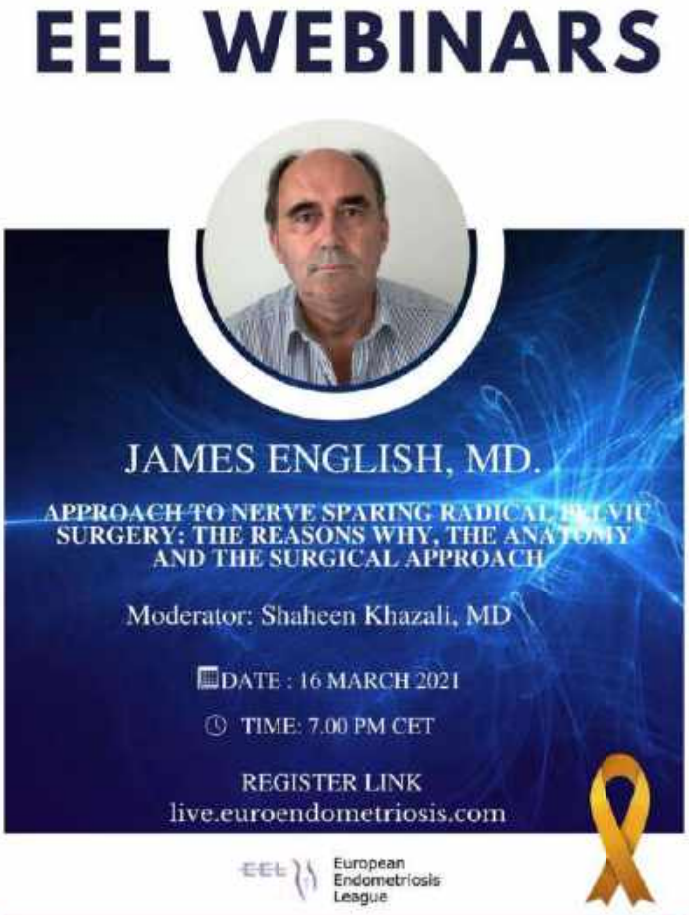
For more information, you can visit www.endometriosis-league.eu/home or follow the European Endometriosis League or Euro Endo League accounts on social media.

In the first webinar held in January, **Joerg Keckstein** gave a lecture on the new classification system, **'The Role of Classification of Endometriosis: From R- ASRM to #Enzian the Common Language for Diagnostics and Treatment'.**



Second webinar in February was held by **Gernot Hudelist** on **'Complications of Deep Endometriosis Surgery'.**

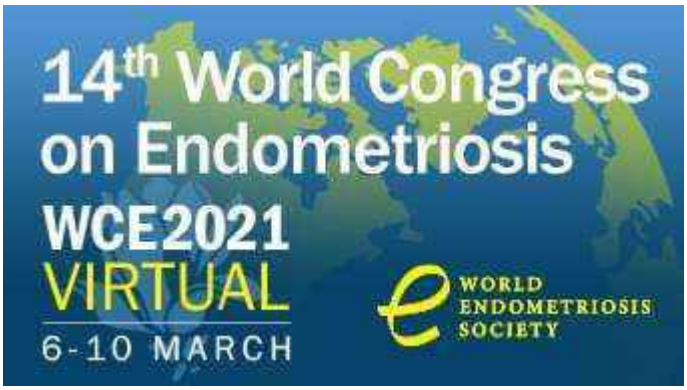
EEL webinar on March was titled AS **'Approach to Nerve Sparing Radical Pelvic Surgery: The reasons Why, the Anatomy and The Surgical Approach'** and presented by **James English** where nerve sparing surgery and anatomical approach in endometriosis was addressed.



ESHRE 2021

Due to the pandemic, the 36th ESHRE Annual Meeting was held online on 5 – 8 th of July, 2020. The 37th Annual Meeting of ESHRE (European Society of Human Reproduction and Embryology) will be virtual and will be held on 27-30th of June, 2021, in Paris.

WCE 2021



14th World Endometriosis Congress was held online on 6-10th of March, 2021 due to the pandemic.

Endometriosis 2021-Rome

Endometriosis 2021 meeting planned to be held in Rome, will be virtual due to the pandemic and is planned to be held on 8-11th of May, 2021.

ACE 2020

Endometriosis Association of Sri Lanka

Asian Society of Endometriosis and Adenomyosis

The joint congress of Endometriosis Association of Sri Lanka and Asian Society of Endometriosis & Adenomyosis, which was planned to be held in 2020, was postponed to 2021 due to the pandemic.

6th EEL Congress, France

The 6th EEL Congress is planned to be held in December, in Bordeux, France. Horace Roman will be the congress president, who is specialized in deep infiltrating endometriosis. Specialists who are interested in deep infiltrating endometriosis are welcomed to attend.

AAGL 2021

50th Global Congress of Minimally Invasive Gynecologic Surgery is planned to be held on 14-17th of November, in Austin, Texas, USA.

SEUD 2021

7th Congress of the Society of Endometriosis and Uterine Disorders will be held in December, in Stockholm, Sweden.

FIGO 2021

FIGO XXIII
24-29 OCTOBER 2021
SYDNEY, AUSTRALIA
WORLD CONGRESS OF GYNECOLOGY AND OBSTETRICS

World Congress of Gynecology and Obstetrics will be held in December, Sydney, Australia.

ASRM-ESHRE 2021

Best of ASRM & ESHRE Meeting will be held virtually in April, 2021.

D INTERVIEW WITH AN 'ENDO SPECIALIST'

Hugh S. Taylor, MD.
Interviewer: Firat Buyuktaskin, MD.

A Short Curriculum Vitae

Dr. Taylor works as the head of the Department of Gynecology and Obstetrics and Reproductive Sciences at Yale University. He is also a professor of Molecular, Cellular and Developmental Biology at Yale University. His clinical areas of interest are IVF, endometriosis, implantation, menopause, uterine anomalies and Asherman's syndrome.

Completing his pre-medical education at Yale University and medical faculty at Connecticut University, Dr. Taylor completed his gynecology and obstetrics specialization, and later reproductive endocrinology and infertility post-specialization at Yale University with his molecular biology postgraduate specialization.

His clinical research is on endometriosis and fibroids, while laboratory research is on uterine development, endometriosis, endocrine disorders and stem cells. He has received 10 national research funds and runs the Yale Center for Reproductive Biology. He was the president of the Reproductive Research Association, and in 2021 he will chair the American Society of Reproductive Medicine.

Turkish Endometriosis & Adenomyosis Society (EAD): How did you start working on endometriosis?

Hugh S. Taylor: Before I knew what endometriosis was, I wanted to be a cancer researcher. When I was a medical student, when I met gynecology and obstetrics and saw how satisfying it was, I turned to this area. Then I realized that endometriosis is a very fascinating disease. I showed an interest in endometriosis at an early age as a field where I could combine my interest in cancer biology and obstetrics, since it has similar characteristics with cancer, there is no limit in the growth of some cells, the cells can implant elsewhere, and after meeting patients who suffer from this disease.

EAD: I know you are actively studying molecular biology. How do you organize your clinical and laboratory studies?

DR HT: Since I have been in a more executive position recently, I am doing less of both nowadays, but before that it was 2 days a week clinical and 3 days research. Of course, these two can overlap each other. You try new treatments while seeing the patient, you collect data for research while you are in surgery. These are, of course, a beautiful continuation of each other, so many good research ideas come from your experience with patients. If you are passionate about a subject, doing research 3 days a week would be to underestimate it, I haven't had a night or a weekend that I didn't take home to work on, but at the same time it never felt like work because I was passionate about it.

EAD: Actually, you have answered most of my next question. I was going to ask you how do you convert your daily practice to research and research into your daily practice?

DR HT: It's easy to convey the research to the clinic. We come up with a treatment idea that will be easy to try on patients, or we plan clinical trials to carry out these ideas from the laboratory. When doing research on endometriosis, the thing to keep in mind is that endometriosis does not only belong to the lesion or the pelvis. Many organs are involved, systemic inflammation, cellular traffic, micro RNAs, and the phenotype of the disease should be viewed from a broader perspective. We know that anxiety and depression are more common in patients with endometriosis, and we were able to show that the disease affects the brain in the mouse. So, you can start to understand the patients better.
When transferring data from clinic to research, your experience with patients plays a role. Sometimes you can make clinical diagnoses and start wondering if it could be a non-invasive diagnosis. I think both sides are feeding each other.

EAD: Actually, you summarized how a work came to life nicely. So, for example, how does a great study like getting drug approval for Elagolix is realized?

DR HT: Although I was the head of the study, it was a group job. Academics are pretty good at setting goals. Pharmaceutical companies organize such large studies in multiple centers.

EAD: Do you think micro RNAs are the new intriguing target for endometriosis?

DR HT: Micro RNAs are just one of the areas we are after, but yes, micro RNAs have changed in endometriosis as in other diseases, we were able to show this. The reason why micro RNAs can be used as a marker is related to the pathophysiology of the disease. They can be secreted in exosomes and travel to other organs. It may be related to distant symptoms caused by endometriosis. Increasing or decreasing these micro RNAs can affect some of the symptoms of endometriosis. We were able to detect some reduction in symptoms by altering micro RNAs in the mouse model. Currently, almost all of our medical treatments are with sex hormones, and endometriosis patients who wish to have children in the future will be able to receive treatment with such specific treatments.

EAD: What do you think are the research priorities in endometriosis?

DR HT: Understanding the pathophysiology to establish treatment goals and to develop non-invasive diagnosis. Another issue we are working on is its heterogeneity. It is difficult to say that this is a single disease. Some types of endometriosis are progestin resistant, we begin to examine them at the molecular level to understand this, so we can begin to separate the types and customize treatments.

EAD: What are the animal models you prefer?

DR HT: We usually use the mouse model, sometimes we also use the baboon model. The problem with the mouse model is that you implant the uterus, it's hard to say it's really endometriosis. In Baboons, however, we can create superficial peritoneal endometriosis model. Of course, we cannot create an exact model mimicking the disease in women. Another model I like is to take human endometriosis tissue and implant it to the immunocompromised mouse. But as I said, all models have their pros and cons.

EAD: We have come to the end of our interview. I know that you worked with so many people from Turkey. I thank you on behalf of the Turkish Endometriosis and Adenomyosis Society.

DR HT: Yes, Aydin Arici is my good friend. Kutluk Oktay and Emre Seli are all in our department. We are working with so many wonderful people from Turkey other than gynecologists. We want to see more researchers from Turkey at Yale.

E ARTICLES ON ENDOMETRIOSIS FROM OUR COUNTRY FROM THE LAST THREE MONTHS

1. Association between endometriosis and increased arterial stiffness

Derya Kilic, Tolga Guler, Cihan Ilyas Sevgican, Cihan Kabukcu, Ipek Buber, Mehmet Kilinc, Muhammet Arslan, Erkut Attar, Ismail Dogu Kilic Kardiol Pol. 2021;79(1):58-65. doi: 10.33963/KP.15706. Epub 2020 Dec 8.

Abstract

Background: Endometriosis is a common gynecologic disease associated with systemic inflammation and atherogenic risk factors. Therefore, women with endometriosis may have increased cardiovascular risk.

Aims: We aimed to evaluate arterial stiffness using cardio-ankle vascular index (CAVI) in women with and without endometriosis.

Methods: We enrolled 44 patients with endometriosis and 76 age-matched controls without endometriosis.Endometriosis was diagnosed based on histopathologic examination or magnetic resonance imaging. Arterial stiffness was evaluated using CAVI in all study participants.

Results: No differences were observed between patients and controls in terms of age (median [interquartile range, IQR], 30 [24.25-5] years and 26 years [24-35] years, respectively), body mass index (median [IQR], 23.31 [20.82-24.98] kg/m2 and 23.74 [21.13-26.78] kg/m2, respectively), or waist circumference (median [IQR], 69 [64-75] cm and 72 [65-81.25] cm, respectively). C-reactive protein levels were higher in women with endometriosis than in controls (median [IQR], 0.27 [0.14-0.68] mg/dl vs 0.12 [0.06-0.24] mg/dl; P <0.001). Left ventricular ejection fraction, left ventricular mass index (LVMI), relative wall thickness, as well as systolic and diastolic blood pressures were similar in both groups. Women with endometriosis had higher CAVI than controls (mean [SD], 5.961 [0.644] vs 5.554 [0.654]; P = 0.001). Elevated arterial stiffness was observed in the endometriosis group also after adjustment for age and LVMI.
Conclusions: Our results indicate increased arterial stiffness measured by CAVI in women with endometriosis. Therefore,clinicians should be aware that these patients may be at increased cardiovascular risk.

Keywords: arterial stiffness, atherosclerosis, endometriosis

2. Management of Urinary Tract Endometriosis Patients by Gynecologists

Emsal Pınar Topdağı Yılmaz, Ömer Erkan Yapça, Gülşah Aynaoğlu Yıldız, Yunus Emre Topdağı, Fatih Özkaya, Yakup Kumtepe J Turk Ger Gynecol Assoc. 2021 Jan 4. doi: 10.4274/jtgga.galenos.2020.2020.0054. Online ahead of print.

Abstract

Objective: We aimed to report the postoperative outcomes of urinary tract endometriosis (UTE), which is a form of deep infiltrative endometriosis, and to contribute to the literature by presenting the obtained results.

Material and methods: In the present study, 70 patients who underwent surgery for endometriosis at our clinic between 2005 and 2019 and had a diagnosis of UTE in the final pathological assessment were examined in detail. Patient information was retrospectively retrieved from the medical records. Data obtained pre-, peri-, and postoperatively were analyzed.

Results: Mean age of the 70 patients included according to the study criteria was 32.73 ± 7.09 years. Ureteral involvement alone was observed in 49% (n = 34) patients, bladder involvement alone was observed in 24% (n = 17) patients, and both bladder and ureteral involvement were observed in 27% (n = 19) patients. Microscopic hematuria was detected in 16% (n = 11) patients (16%), whereas preoperative urinary tract findings, such as recurrent urinary tract infections, were detected in 19% patients (n = 13). Of the patients, 56% (n = 39) were identified with dyspareunia, 56% (n = 39) with dysmenorrhea, and 30% (n = 21) with pelvic pain.

Conclusion: Although postoperative results were typically considered positive, surgical method performed in deep infiltrative endometriosis should aim to preserve fertility, improve quality of life, and reduce the complication rate to a minimum.

Keywords: Urinary tract endometriosis; dyspareunia; dysuria; hematuria.

3. Determination of PD-1 expression in peripheral blood cells in patients with endometriosis

Buğra Okşaşoğlu, Ceylan Hepokur, Sema Misir, Çağlar Yildiz, Gamze Sönmez, Ali Yanik Gynecol Endocrinol. 2021;37(2):157-161. doi: 10.1080/09513590.2020.1821358. Epub 2020 Oct 20.

Abstract

In patients with endometriosis, ectopic endometrial tissues can escape from immune system control and survive in other tissues. The pathophysiology of endometriosis is still not fully understood. In this study, we aimed to clarify the pathophysiology of endometriosis, which is thought to be a benign but infiltrative cancer type, which has many similarities with cancer biology by determining PD-1 expression in patients with endometriosis. In this study, n = 73 cases who underwent surgery or examination at the Obstetrics and Gynecology Clinic of Sivas Cumhuriyet University Faculty of Medicine and diagnosed as endometriosis in the biopsy material taken with the pre-diagnosis of endometriosis constituted the patient group. The control group consisted of n = 64 healthy subjects without concomitant malignancy or chronic inflammatory disease. Venous whole blood samples were obtained from the study groups. PD-1 and PD-L1 levels were determined by the ELISA method from serum and plasma samples. PD-1 gene expression level was determined by RT-PCR. The PD-1 level was found to be approximately 350 ± 150 ng/L and 45 ± 17 ng/L in endometriosis and control group, respectively. While the PD-L1 level was approximately 760 ± 108 ng/L in the patients, this level was 140 ± 14 ng/L in the controls. According to the RT-PCR results, the expression of the PD-1 gene 10 times higher compared to the controls. Conclusion: The identified increase of PD-1 levels and gene expression in endometriosis groups show that immunotherapy may be used in the treatment of endometriosis.

Keywords: Endometriosis; PD-1; immunotherapy.

4. The role of unfolded protein response in the pathogenesis of endometriosis: contribution of peritoneal fluid

Tugba Ekiz-Yilmaz, Basak Isildar, Altay Gezer, Duygu Kankaya, Cevriye Cansiz-Ersoz, Umit Ali Kayisli, Elif Guzel Reproductive BioMedicine Online, 2021;42(1): 1-15. doi: 10.1016/j.rbmo.2020.09.012. Epub 2020 Sep 14.

Abstract

Research question: Endoplasmic reticulum stress (ERS) is caused by the accumulation of the misfolded or unfolded proteins in the endoplasmic reticulum and induces the unfolded protein response (UPR). Peritoneal fluid is important in the pathogenesis of endometriosis. In this study, the role of UPR associated with ERS in endometriosis, and peritoneal fluid, were investigated.

Design: Normal, eutopic and ectopic endometrium tissues were divided into menstrual cycle phases, and endometrial stromal cells (ESC) were treated with 10-20% concentration of control peritoneal fluid and peritoneal fluid obtained from women with endometriosis for 10, 30 and 60 min, and 24 and 48 h. The UPR signalling proteins were analysed immunohistochemically and immunocytochemically. Data were compared statistically.

Results: p-IRE1 was increased in ectopic glandular and stromal cells in the early proliferative phase compared with normal and eutopic endometrium. p-PERK increased in ectopic glandular and stromal cells in the late proliferative phase compared with normal endometrium. ATF6 was increased in ectopic glandular epithelium compared with normal endometrium in the proliferative phases, versus eutopic endometrium in the late secretory phase. p-IRE1 and p-PERK were increased in high concentrations of ESC treated with peritoneal fluid obtained from women with endometriosis for 10, 30 and 60 min compared with controls. In ESC treated with peritoneal fluid from women with endometriosis, p-IRE1 decreased at 24-48 h compared with 30 min.

Conclusions: In endometriosis, UPR pathways are activated as highly dependent on cell type and phase. Also, p-PERK and p-IRE1 increased because of exposure to high-dose peritoneal fluid from women with endometriosis in stromal cells. Our findings provide a basis for further studies searching for a potential biomarker for the diagnosis of endometriosis.

Keywords: Endometriosis; Endoplasmic reticulum stress; Human endometrial stromal cells; Peritoneal fluid; p-IRE1

5. Granzyme B levels and granzyme B polymorphisms in peripheral blood of patients with endometriosis: a preliminary study

Mine Islimye Taskin, Gurhan Guney, Ertan Adali, Adnan Adil Hismiogullari, Yavuz Dodurga, Levent Elmas J Obstet Gynaecol 2021;41(1):94-99. doi: 10.1080/01443615.2019.1697220. Epub 2020 Jul 1.

The chronic course of endometriosis suggests that the immune system may play a role in its aetiology. There may be resistance to cell lysis, as well as an immune defect underlying endometriosis. Granzyme B is a serine protease that is secreted by Natural Killer (NK) cells and cytotoxic T lymphocytes during a cellular immune response and can induce apoptosis. The aim of this study was to evaluate the relationship between both Granzyme B levels and Granzyme B gene polymorphisms in endometriosis patients. Women between the ages of 20 - 45 were included in the study. The patients were divided into two groups: those diagnosed with endometriosis and those who had not been diagnosed with endometriosis. In the blood samples, Granzyme B gene polymorphisms and serum levels of Granzyme B were studied. There was no difference between the groups in terms of median Granzyme B levels and the presence of AA, AG, and GG genotypes. There was a difference in median granzyme levels for the control group; the GG genotype was found at a lower frequency. The immune defect within endometriosis-related immune cells may not be exclusively due to Granzyme B. Other mediators that are secreted from immune cells may have additive effects.

IMPACT STATEMENT

What is already known on this subject? NK cells are cytotoxic and inhibit the implantation of autologous endometrial cells that are spilled into the peritoneum by retrograde menstruation. Thus, a reduction in NK cell activity may facilitate the progression of endometriosis. The literature review reveals that there are studies suggesting that NK cell activity may be insufficient in endometriosis. Granzyme B is a serine protease that is secreted by NK cells and cytotoxic T lymphocytes during a cellular immune response. **What do the results of this study add?** Granzyme B is one of the cytotoxic granules in NK and cytotoxic T lymphocyte cells and its genetic

polymorphisms were tested in endometriosis. We found that median Granzyme B levels were significantly different in patients with the GG genotype in the control group, compared to those with the AA and AG genotype. However, this difference was not detected between the control and endometriosis groups.**What are the implications of these findings for clinical practice and/or further research?** Our results contribute to uncovering the pathogenesis of endometriosis since there are no previous studies in the literature regarding this topic. Although we did not find a difference, our results will inform further studies made on this topic. Studies with different molecules and an increased number of patients are needed. The immune defect of endometriosis may not be due exclusively to Granzyme B. Other mediators that are secreted from immune cells may have mutual effects and interactions.

Keywords: Endometriosis; gene polymorphism; granzyme B; immune theory.

6. The role of mitogen-activated protein kinase signaling pathway in endometriosis

Gizem Bora, Aylin Yaba J Obstet Gynaecol Res. 2021 Feb 15. doi: 10.1111/jog.14710. Online ahead of print.

Abstract

Aim: Endometriosis is an estrogen-dependent chronic inflammatory condition which causes pain, infertility, and predisposition for ovarian cancer. Endometriosis generates a unique microenvironment for survivability of endometriotic lesions which includes cell proliferation, differentiation, migration, and apoptosis. For these cellular activities, cascading activations of intracellular kinases are needed. Many kinase signaling pathways, IKKβ/NK-κB pathway, PI3K/AKT/mTOR, and the mitogen-activated protein kinase (MAPK) pathways (ERK1/2, p38, and JNK), are activated in endometriosis. In this review, we focus on the role of MAPK pathways in endometriosis.

Methods: To identify the role of MAP Kinase signaling pathway in endometriosis we searched the Pubmed database using the search terms in various combinations "endometriosis," "endometrium," "ovary," "MAPK pathway," "ERK pathway," "p38 pathway," "JNK pathway," "estrogen," and "progesterone."

Results: According to the current literature, MAPK signaling pathway has various roles in generating microenvironment and survival of endometriosis. Abnormal MAPK activation in migration, implantation, growth, invasion into the pelvic structures, proliferation, and apoptosis leads to the form of endometriosis and to worsen the condition in patients with endometriosis.

Conclusion: To further investigations on the effective and long-term endometriosis treatment, MAPK signaling pathways may be targeted. Molecular mechanism of MAPK signaling pathway in endometriosis should be more deeply understood and clinical trials should be more commonly performed for possible new endometriosis treatments to improve fertility and rescue endometriosis irreversibly.

Keywords: MAPK kinases; endometriosis; female reproductivity.

7. Impact of endometrioma and bilaterality on IVF / ICSI cycles in patients with endometriosis

Nafiye Yilmaz, Mehmet Ufuk Ceran, Evin Nil Ugurlu, Hacer Cavidan Gulerman, Yaprak Engin Ustun J Gynecol Obstet Hum Reprod. 2021;50(3):101839. doi: 10.1016/j.jogoh.2020.101839. Epub 2020 Jun 30.

Abstract

Aim: Endometriosis, one of the most common gynecological disorder, is a challenging disease observed in 20 %-40 % of subfertile women. Endometriomas affect 17-44 % of women with endometriosis. Because endometrioma has detrimental effects on fertility, many of these women need Assisted Reproductive Technology (ART) to conceive. In this study, we aimed to investigate the effects of endometrioma presence and impact of bilaterality over In Vitro Fertilization (IVF) and Intracytoplasmic Sperm Injection (ICSI) outcomes.

Method: The study was designed retrospectively. A total of 159 women enrolled in IVF / ICSI cycles were included. Patients were divided into two groups as Endometrioma group (n: 73) and control group (n:86). In Endometrioma group, subgroup analysis was performed according to whether endometrioma was unilateral or bilateral. Demographic characters, clinical and laboratory parameters were recorded. SPSS was used for analysis.

Results: In endometrioma group, although basal FSH levels was higher than control group, it was within normal limits, while estradiol levels was lower (p < 0.001, p 0.042, respectively). Antral follicle count (AFC), dominant follicle number, total oocyte count, MII oocyte numbers were found to be significantly lower, whereas numbers of embryos achieved, clinical pregnancy rates (PR) and live birth rates (LBR) were found to be similar.There were no statistically significant differences in terms of Antimullerian Hormon (AMH) levels, oocyte and embryo quality, the numbers of embryos achieved, PR and LBR between unilateral and bilateral endometrioma groups.

Conclusion: This study shows that presence of endometrioma negatively effects fertility parameters albeit no significant effect over embryo quality, PR and LBR whereas bilaterality doesn't have any influence over any fertility parameters and PR.

Keywords: ART; Bilaterality; Endometrioma; IVF/ICSI; Outcome.

8. A case of cyclic hemoperitoneum in a hemodialysis patient: Encapsulated peritoneal sclerosis complicated by endometriosis and fungal peritonitis

Fatih Yılmaz, Feyza Bora, Ramazan Çetinkaya, Mustafa Tekinalp Gelen, Gültekin Süleymanlar, Fevzi Ersoy Semin Dial. 2021;34(2):176-179. doi: 10.1111/sdi.12945. Epub 2020 Dec 22.

Abstract

Encapsulated peritoneal sclerosis (EPS) is a rare, but frequently fatal, long-term complication of peritoneal dialysis. Endometriosis is a common gynecological problem but hemoperitoneum due to endometriosis has been reported to be extremely rare in hemodialysis (HD) patients. A 25-year-old female HD patient was admitted to our clinic with nausea, vomiting, abdominal pain, and weight loss for last 3 months. Candida tropicalis and Candida glabrata were isolated in the fungal cultures from peritoneal fluid. Her abdominal computerized tomography scan has shown irregular peritoneal calcifications, diffuse peritoneal thickening, dilatation of the small bowel loops, and cocoon formation which all were typical for EPS. Hemoperitoneum was reported to recur for four times with intervals suggesting menstrual cycles. Her peritoneal biopsy, along with the signs of EPS, has also revealed the presence of endometriosis. The patient died with symptoms of septic shock in the first year of EPS diagnosis.

Keywords: encapsulated peritoneal sclerosis; endometriosis; hemodialysis; hemoperitoneum.

9. Loss of stromal CD73 expression plays a role in pathogenesis of polypoid endometriosis

Ali Yilmaz Altay, Ekrem Yavuz, Aysel Bayram, Cenk Yasa, Suleyman Engin Akhan Arch Gynecol Obstet. 2021 Jan 12. doi: 10.1007/s00404-020-05942-3. Online ahead of print.

Abstract

Purpose: To investigate whether CD73 had a role in the pathogenesis of polypoid endometriosis.
Methods: Our study included 15 cases of polypoid endometriosis, which were diagnosed between 2005 and 2019. Clinical findings were gathered from archive files of relevant clinics and pathology reports. All glass slides were re-examined for confirmation of the diagnosis and the detection of additional microscopic findings. An immunohistochemical examination was performed using anti CD73 antibodies in 15 cases of polypoid endometriosis, and also in a control group that contained 9 cases of endometrial polyps and 9 cases of ovarian conventional endometriosis.

Results: In addition to standard gynecologic operations, major non-gynecologic procedures had to be performed in 7 cases. In two cases, the surgical team comprised only general surgeons, and a misdiagnosis of carcinoma was made during the frozen section in one case. The majority of the cases displayed gross polypoid lesions that measured 0.7-13 cm. The most common sites were the ovary and rectosigmoid colon. Microscopically, all lesions exhibited a fibrovascular stroma reminiscent of endometrial stroma, whereas glandular features varied. Immunohistochemical examinations revealed a significant loss of CD73 expression in the stroma of polypoid endometriosis in contrast to the control cases, which retained stromal CD73 expression (p < 0.0001).

Conclusion: Both pathologists and surgeons performing abdominal surgeries should be aware of polypoid endometriosis because it mimics malignancy with its clinical, gross, and microscopic features. We also conclude that loss of stromal CD73 expression, due to its effect on the extracellular ATP/adenosine balance, may contribute to the pathogenesis of this rare form of endometriosis.

Keywords: Endometriosis; Immunohistochemistry; Pathogenesis; Polyp.

10. Circulating serum miR-200c and miR-34a-5p as diagnostic biomarkers for endometriosis

Sema Misir, Ceylan Hepokur, Bugra Oksasoglu, Caglar Yildiz, Ali Yanik, Yüksel Aliyazicioglu J Gynecol Obstet Hum Reprod. 2021;50(4):102092. doi: 10.1016/j.jogoh.2021.102092. Online ahead of print.

Abstract

Objective: Endometriosis is defined by the presence of endometrial glands and stroma grow in areas outside the uterus. A simple blood test for endometriosis-specific biomarkers would offer a more timely accurate diagnosis of the disease and could lead to earlier treatment intervention. Alterations in microRNA (miRNA) levels in blood may reflect changes during normal physiologic processes and have been related to several pathologic conditions, including gynecologic diseases. In the present study, we aim to evaluate the level of serum miR-34a-5p and miR-200c from women with and without endometriosis, and to explore the potential of miRNAs as reliable non-invasive biomarkers in the diagnosis of endometriosis.

Methods: Expression levels of miRNAs were performed by quantitative real-time polymerase chain reaction (qRT-PCR). Serum cancer antigen 125 (CA-125) levels were analyzed by autoanalyzer.

Results: miR-34a-5p expression levels were decreased and miR-200c expression levels were increased in the endometriosis patients compared to the control group. According to the areas under the ROC curve (AUC) values, miR-200c and miR-34a-5p may serve as biomarkers for the diagnosis of endometriosis. Serum miR-34a-5p and miR-200c had a sensitivity of 78.95 % and 100 % and a specificity of 49.12 % and 100 %, respectively, for the detection of endometriosis.

Conclusion: Serum miRNAs may provide a promising opportunity for diagnosis of endometriosis. Understanding the role of circulating miRNAs will serve a better comprehension of the systemic effects of endometriosis and offer options for new treatments. It is clear that more work is needed in this area.

Keywords: Biomarker; Endometriosis; Non-invasive diagnosis; miR-200c; miR-34a-5p.

11. Dienogest reduces endometrioma volume and endometriosis-related pain symptoms

Semih Z Uludag, Elif Demirtas, Yılmaz Sahin, Ercan M Aygen J Obstet Gynaecol. 2021;1-10. doi: 10.1080/01443615.2020.1867962. Online ahead of print.

Abstract

This study aimed to evaluate the efficacy and adverse effects of dienogest for the treatment of endometriomas. Dienogest (2 mg/day) was administered to patients with endometrioma continuously through the 6-month study period. The patients were prospectively examined on the efficacy and side effects at baseline, at third months, and sixth months of the treatment. Twenty-four out of 30 patients were able to complete the study. The mean volume of the endometrioma decreased significantly from 112.63 ± 161.31 cm^3 at baseline to 65.47 ± 95.69 cm^3 at a 6-month follow-up (-41%) ($p = .005$). The VAS score for pelvic pain decreased significantly from 7.50 to 3.00 ($p < .001$) at the sixth months of treatment. The most common side effects were menstrual irregularities. Laboratory parameters did not change during the study. Dienogest considered being effective for 6 months of use in decreasing the size of endometrioma, reducing endometriosis-associated pain with a favourable safety and tolerability profile.Impact statement. **What is already known on this subject?** Laparoscopic excisional surgery for endometrioma is currently the most valid approach in the treatment of endometriomas. However, there are concerns about ovarian reserve damage during surgery. **What do the results of this study add**? Dienogest considered being effective in decreasing the size of endometrioma, reducing endometriosis-associated pain with a favourable safety and tolerability profile. Long-term use of dienogest in younger patients with endometriomas who are yet to give birth may reduce the possibility of surgery by reducing the size of the endometriomas and may preserve ovarian reserve. **What are the implications of these findings for clinical practice and/or further research?** Dienogest may reduce the incidence of infectious complications such as pelvic abscess after oocyte retrieval and the surgical procedures in infertile patients with endometrioma.

Keywords: Dienogest; chocolate cyst; endometriosis; long-term use; visual analog scale.

12. Relation between educational reliability and viewer interest in YouTube® videos depicting endometrioma cystectomy surgical techniques

Cihan Kaya, Taner Usta, Hayriye Sema Baghaki, Engin Oral J Gynecol Obstet Hum Reprod. 2021 Mar;50(3):101808. doi: 10.1016/j.jogoh.2020.101808. Epub 2020 May 16

Abstract

Objective: To assess the reliability of YouTube® endometrioma cystectomy videos based on technical video analysis and considering the surgical steps.

Material and method: The present study yielded 756 videos after a search on YouTube® with the keywords "endometriosis cystectomy, endometrioma cystectomy, chocolate cyst cystectomy, and endometrioma surgery'' during the period from January 7, 2007 to January 7, 2019. The viewer interest parameters such as total number of subscribers, views, likes, dislikes, comments, source of the videos, and the date of upload were assessed. Besides, the surgical steps were also evaluated considering committee suggestions.

Results: There were 140 (78.7 %) videos in Group 1 (not useful and slightly useful) and 38 (21.3 %) videos in Group 2 (useful and very useful). The mean numbers of subscribers, views, and likes were 5737.843 ± 15741.302, 10614.257 ± 32702.339, and 17.7 ± 43.57, respectively, in Group 1, and 851.052 ± 1613.599, 8192.55 ± 15989.955, and 11.92 ± 27.52, respectively, in Group 2. The type of surgery was significantly different between the study groups. The videos of cases with robotic surgeries presented more useful descriptive information (p = 0.003). There was a significant difference between the study groups regarding the type of hemostasis. The presence of didactic steps was higher in Group 2 (47.4 %) compared to Group 1 (28.6 %) (p = 0.02) CONCLUSIONS: Overall, only around 21 % of YouTube videos presenting endometrioma surgery were defined as useful or very useful. The interest rates of the viewers may not compatible with the usefulness rate of the videos.

Keywords: Cystectomy; Educational activities; Endometrioma; Instructional films and videos; Laparoscopy.

13. Are women with small endometriomas who undergo intracytoplasmic sperm injection at an elevated risk for adverse pregnancy, obstetric, and neonatal outcomes?

Fatma Ferda Verit, Ayse Seyma Ozsuer Kucukakca Clin Exp Reprod Med. 2021;48(1):80-84. doi: 10.5653/cerm.2020.03776. Epub 2021 Feb 18.

Objective: The aim of the study was to investigate pregnancy, obstetric, and neonatal outcomes in women with small (<4 cm) unilateral endometriomas.

Methods: This retrospective study included 177 patients: 91 patients with small endometriomas and 86 controls with unexplained or tubal factor infertility who were treated at the Süleymaniye Gynecology and Maternity Training and Research Hospital Infertility Unit between January 2010 and July 2015. The groups were matched with regards to demographic characteristics such as age, body mass index, and infertility duration. All of the women in this study conceived via intracytoplasmic sperm injection. We compared pregnancy, obstetric, and neonatal outcomes between these groups.

Results: Women with endometriomas had a higher biochemical pregnancy rate, but lower clinical pregnancy and live birth rates than women with unexplained and tubal factor infertility ($p<0.05$ for all). However no significant differences were found in terms of obstetric and neonatal complications between the two groups ($p>0.05$ for all).

Conclusion: In this study, we found that women with endometriomas less than 4 cm were more prone to early pregnancy complications. We also showed that this group did not have any increased risks of late pregnancy, obstetric, and neonatal complications.

Keywords: Endometrioma; Neonatal; Obstetric outcome; Pregnancy.

14. Perineal scar endometriosis involving the anal sphincter. A case report and review of the literature

Ismail Cem Eray, Uğur Topal Annali Italiani di Chirurgia. 2021 (10 – Jan. 20): page 1-5

Abstract

Background: Perineal endometriosis is the presence of endometrial tissue in the perineal region. Early diagnosis and treatment is important due to anal sphincter involvement in almost half of the patients. Endoanal ultrasonography is a reliable technique in the assessment of perineal endometriosis with anal sphincter involvement. This report describes the presentation, clinical investigation, and surgical treatment of a perineal endometriosis case CASE REPORT: 32-year-old female patient presented with cyclic pain and swelling of an old episiotomy scar. Three-dimensional endoanal ultrasonography showed a lesion with involvement of the external anal sphincter muscles, and it was completely excised and primary sphincteroplasty was performed for the external anal sphincter defect.The final pathology result was reported as endometriosis. Postoperative periods were uneventful and anal incontinence was not observed.

Conclusion: Perineal endometriosis is a rare disease and may involve the anal sphincter muscles. Incomplete excision to protect the sphincters is associated with high recurrence, while extensive excision can cause anal sphincter damage that may cause anal incontinence. Endoanal ultrasonography may be necessary in surgical planning. Primary sphincteroplasty with excision may be necessary in cases of perineal endometriosis with external anal sphincter muscle involvement.

Keywords: Case Report, External Anal Sphincter, Endoanal Ultrasound, Sphincteroplasty Perineal Endometriosis.

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