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## Endometriosis — a systematic and interdisciplinary approach

Pawel Basta<sup>1</sup>, Harald Krentel<sup>2</sup>

<sup>1</sup>Chair of Gynaecology and Obstetrics of Jagiellonian University, Medial College; Department of Gynaecology and Gynaecological Oncology of University Hospital in Cracow, Poland <sup>2</sup>Gynaecology, Obstetrics, Gynaecological Oncology, Bethesda Hospital, Duisburg, Germany

Endometriosis as a health problem was recognized as early as 1860 [1]. Early attempts to define the disease often led to contradictory conclusions, some even denied its status as a disease. Nowadays, it is just as common to see the overuse of the endometriosis label when symptoms manifested by a woman elude classical attempts to categorize them into other, just as hard to identify illnesses [2]. Therefore, about 10% of the female population of reproductive age suffering from endometriosis, with its main symptoms being pain and infertility, often wait many years before they are properly diagnosed [3]. Endometriosis causes physical, psychological and social degradation not only to the sufferer, but also to her immediate environment [4]. The literature on endometriosis and adenomyosis, a particular form of it, comprises over 30 000 titles in peer-reviewed journals, several book publications, web portals, science and popular science articles [5]. Numerous scientific meetings devoted to the discussion of these problems and increasingly active patient support groups in virtually every country suggest a growing need for groundbreaking changes, both in terms of the possibilities for an effective diagnosis and for the treatment of the disease per se, as well as in terms of the public perception of the suffering endured by the women with endometriosis. Significant progress in the use and interpretation of ultrasound and magnetic resonance (NMR) has helped escort the previous dogma of diagnosing endometriosis on the basis of intraoperative images from laparoscopy out the door and replace it by a full preoperative diagnosis with staging and assessment of severity of lesions [6]. The use of IDEA and MUSA criteria when performing ultrasound of the small pelvis facilitates precise diagnosis of the disease in the organs and anatomical structures traditionally considered inaccessible in this type of examination [7-9]. Understanding of the importance of precise and radical surgical treatment to resolve complaints or improve fertility outcomes is also

gaining ground, as evidenced by the increasingly popular Masterclass training for doctors organised by the European Endometriosis League (EEL) [10, 11]. In addition, new, already available pharmacological treatment options with GnRH antagonists in combination with 'add back' therapy or targeted drugs based on molecular profiling of the disease, probably achievable in the near future, have the potential for another breakthrough in the history of treatment of this disease [12, 13]. Nevertheless, despite the optimistic news, since Sampson's 1921 announcement of the theory of retrograde menstruation as the cause of endometriosis, the world is failing to significantly progress in providing explanations of the pathogenesis underlying this condition [14, 15]. Hence, in recent years, a number of research centres in the Old Continent decided to consolidate their scientific and epidemiological activities in order to collect reliable data that will, in the near future, lift the mist currently clouding our understanding of the causes of this mysterious disease. These medical world initiatives, accompanied by an increasingly frequent and more vocal presence of organisations of women who suffer from endometriosis, have triggered actions in many European countries — including Poland aimed at implementing fundamental systemic changes in health care, with the potential to dramatically improve the situation of women with endometriosis. Since the beginning of this year, intensive work has been carried out, with corresponding effort of the ministerial team for endometriosis and the expert team of the Polish Society of Gynaecologists and Obstetricians (PTGiP), aimed to prepare a diagnostic and therapeutic pathway for women with suspected endometriosis, as well as to develop up-to-date recommendations with respect to the disease itself. The work on the latter has just been completed and will be made public in the next few days. Most recent PTGiP recommendations on endometriosis were published in 2012 and it must be stressed that

Corresponding author:

Pawel Basta

Chair of Gynaecology and Obstetrics of Jagiellonian University, Medial College; Department of Gynaecology and Gynaecological Oncology of University Hospital in Cracow, Poland e-mail: pawel.basta@uj.edu.pl

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the latest guidelines are far from being just a continuation of the previous ones [16]. It is a completely new document, incomparably more comprehensive and precise. It takes into account the newest information and options offered by medicine, both in the course of the diagnostic process, and in the treatment of endometriosis and adenomyosis. First and foremost, attention should be drawn to the information on the currently recommended algorithms for diagnosing endometriosis using a targeted questionnaire based on specific history data and the diagnostic capabilities of imaging tests such as ultrasound and MRI. Reviewing the analysis and recommendations of currently available non-invasive tests for endometriosis on the market is also worth recommending [17]. These tests, based on the expression of brain-derived neurotrophic factor (BDNF) or the expression of fucosyltransferase 4 (FUC 4) in the endometrium or tests based on mRNA products from saliva evoke understandable excitement and hope [18-20]. However, their clinical relevance still needs to be verified in robustly designed studies. Another highlight of these recommendations is the systematic presentation of pharmacotherapy options and their importance not only in relieving discomfort, but also in its potential as an important diagnostic tool. An extensive part of the recommendations is devoted to the problem of deep endometriosis (DE), which is often the most problematic form of the disease in terms of both diagnosis and treatment. The expert group also addressed the controversy regarding a possible increase in cancer risk in women with endometriosis [21, 22]. This section of the document contains recommendations on what information an endometriosis patient should obtain.

Placing these recommendations in the hands of Polish obstetricians and gynaecologists — and probably also doctors of other specialities — gives hope for a more individualised and modern approach to patients who perhaps struggle with this demanding disease. At the same time, they constitute a fundamental document for the team working on new systemic solutions, which gives a chance for effective and harmonious cooperation in this area between the medical community and those managing the health care sector.

## **Conflict of interest**

The authors declare no conflict of interest.

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