

A topical congress on the latest developments in the field of gender medicine

2017 ended with a number of new developments and events on the topic of gender medicine in our country. The most recent of these was the success that marked the 4th Italian Congress on Gender Medicine, which was held in Padua (Italy) from 27th to 28th November. The meeting, chaired by Professor Giovannella Baggio, pioneer in gender medicine in Italy, sponsored as always by the National Research Centre for Gender Health and Medicine at the University Hospital of Padua, founded in 2009, opened the 2017 edition at a very favourable time, given the progressive spread of gender medicine in Italy and other countries. This shows that the efforts made in the last decade to increase awareness and knowledge on this important aspect of medical sciences are finally achieving concrete results at the level of public opinion, health institutions and health representatives.

This is precisely why this issue of the *Italian Journal Gender-Specific Medicine*, the last in 2017, is presented to readers in a special format, entirely dedicated to the Padua Congress, which brought together for the first time hundreds of attendees from all over Italy.

The Congress was held to the satisfaction of all participants and in the spirit of current events and advances on the main topics concerning gender medicine. It marked, as was the case for previous editions, an end to the vast amount of work completed in recent years, but even more so a new starting point to enrich translational scientific research and organise health policies and training programmes at all levels in order to disseminate a culture and practice of medicine that differs greatly when represented and interpreted for males and females.

The Congress included two Opening lectures and ten Update lectures on pathologies and topics of great interest, several Oral communications, 55 Posters, one Debate session entitled "Psychosocial factors and gender health", three Round tables to discuss on "Physicians' training on gender-specific medicine in Italy", "The Regions and the gender-specific medicine", "Guidelines for a gender-specific medicine" and, finally, the Lecture entitled "From guidelines to personalised medicine".

During the second day, the three prizes for the best posters were awarded, chosen by a panel of five clinicians.

As always in the task of facilitating reading, we propose a quick overview of the works selected from the wide range of studies produced at the conference in Padua.

Let's start with Francesco Saverio Mennini, economist at Tor Vergata University, Rome, who in his article "Gender-specific medicine and personalised medicine: health economics profiles" emphasises the concept of a healthy population as a prerequisite of a healthy economy. Gender medicine in times of personalised care offers an opportunity because it opens up new perspectives for better and more appropriate management of resources.

"Epigenetics and gender", by Giuseppe Novelli from the University Tor Vergata, underlines how morphological and behavioural differences between men and women represent the clearest example of phenotype diversity between individuals. This does not, however, allow us to biologically distinguish a male from a female.

In the Update lecture entitled "Gender differences in heart failure" Giovanni Sinagra and colleagues, from the Integrated University Hospital of Trieste - ASUITS, confirm the growing impact of heart failure on the western world. This pathology has little prevalence among women and has very different gender characteristics with regard to epidemiology, pathophysiology, symptoms, treatment and prognosis.

In her article "Cardiac arrhythmias", Loira Leoni reviews the main types of alteration in heart rhythm and highlights the gender differences with regard to epidemiology, presentation and evolution, including the function and role of hormones.

"Gender differences in lung cancer", by Giulia Pasello and colleagues from the Medical Oncology Department of the Veneto Oncology Institute and the Oncological, Surgical and Gastroenterological Sciences Department of the University of Padua, highlights the differences between males and females in terms of number and risk factor, clinical, pathological and molecular characteristics, and the outcomes of lung tumours, the main cause of death associated with cancer in both men and women.

Giovanna Masala, from the Institute for Cancer Research, Prevention and Clinical Network (ISPRO) in Florence, in "Obesity and cancer" discusses how essential it is to maintain a normal body weight since a large

number of studies show that excess weight is associated with increased risk of cancer in different organs. Obesity is an established risk factor for chronic diseases, including cancer, and its prevalence is increasing. Preventing excess body weight throughout life is a public health objective.

In "Gender and dementia", Amalia Cecilia Bruni and colleagues, from the Regional Centre for Neurogenetics in Lamezia Terme ASP-CZ, reflect on a major limitation of research into dementia, namely the absolute lack of a gender perspective. In her work, the researcher investigates the pathogenetic mechanisms in order to try to understand how Alzheimer's begins in the brain. There is very little data on gender differences and we need to go further because, just as diseases affect men and women differently, different types of dementia also show different expressions linked to gender.

The Update lecture "Gender and sex in strokes", by Francesca Pezzella and Valeria Caso, from the Stroke Unit at San Camillo Forlanini Hospital in Rome and the Stroke Unit at Santa Maria della Misericordia Hospital in Perugia respectively, concentrate on the gender differences that permeate cerebrovascular diseases and the risks (prevalence in post-menopause and throughout life, mortality rates, disability, depression and dementia) for women being much greater than they are for men. In the last part of their article, the authors examine the use and effectiveness of antiplatelets in both the sexes in primary and secondary prevention, with particular reference to the use of aspirin.

Sociologist Rita Biancheri, in her article "Social factors from a gender health perspective", complains that gender medicine suffers from the same slow form of penetration due to difficulty in even interpreting the term gender, which is often used as a simple synonym for sex. It is time to talk not just about medicine, even where it is gender-specific, but rather about promoting a field of research that follows a multifactorial model and the indicators involved in the process. We need to move from a holistic view to a holistic idea of psychosocial well-being and to an integrated perspective offered by gender to circumvent the neutrality of science. In short, Biancheri calls for the concept of multidisciplinary health and gender category.

How does gender influence the doctor/patient relationship? This is what Fulvia Signani, psychologist and sociologist at the University of Ferrara, tries to explain in "How gender affects the relationship between physician and patient". Everyone knows that gender represents, among the various factors associated with pathology and the patient, the most important indicator independent of the patient's reaction and everyone knows that the dialogue works differently depending on whether the health worker is a man or a woman, and whether the patient is a man or a woman.

"Gender health and early days of life: when does the influence of psychosocial factors start?". Daria Minucci, from the Department of Women and Children Health at the University of Padua, writes that the first 1000 days of life from conception to two years are crucial for life-long health and well-being and that the hard core of each psyche is structured during pregnancy. Reviewing the different factors from prenatal stress to maternal anxiety, brain development and plasticity to cortisol, the author concludes that the epidemiological evidence and the results of the first studies on metabolic, endocrine, genetic and biomolecular mechanisms in the first 280 days of life are an important stimulus for further research and studies, which must be conducted from a gender perspective.

Elena Ortona, from the Centre for Gender Medicine of the Italian National Institute of Health, in her article "Immunology and

immune-mediated diseases", discusses gender differences in the immune response and the immune system of males and females, but also the weight of biological aspects and social factors in the immune responses between the two genders.

"Immunology and cancer: gender differences" by Anna Maria Di Giacomo and Michele Maio from the Center for Immuno-Oncology of the University Hospital of Siena, examines the potential of immunotherapy against tumours and possible gender differences: from the concept of immunoediting cancer, which consists of extrinsic tumour suppression obtained only after cell transformation has occurred and intrinsic suppression mechanisms have failed, to immunotherapy based on immune checkpoints, which are the signal stations for stimulation and/or inhibition of cell receptors.

Adriana Maggi and Sara Della Torre, from the University of Milan, in their article "Hepatic metabolism and gender" highlight the close link between the liver and the ovaries. The authors review previous studies that have demonstrated the important transcriptional activity of the alpha receptor (ER) in the liver, strictly regulated by circulating levels of oestradiol and dietary signals. The undeniable association between the liver and the female gonads is due to the fact that most of the proteins required for ovulation originate in the liver and their synthesis occurs after stimulation by the oestradiol, synthesised in the ovaries.

Walter Malorni, on behalf of the Center for Gender-Specific Medicine at the Italian National Institute of Health, presents "Cellular/molecular features and sexual differences". Men and women are subject to the same pathologies, but present significant differences with respect to incidence, onset, progression, response to treatments and prognosis. In addition, the state of health/disease is influenced not only by gender aspects but also by socio-economic and cultural factors. This leads to major differences which need to be clarified.

Finally, Nicola Natale, from the Federation of Italian Medical-Scientific Societies (FISM) in Milan, in the Lecture entitled "From guidelines to personalised medicine" gives an overview of the meaning of the words 'guidelines', 'recommendations', 'protocols', 'diagnostic/therapeutic pathways', etc, and what to expect from their implementation. Natale underlines the importance of scientific associations in terms of updating and drafting documents and highlights some critical issues, the first of which concerns the absolute lack of consideration of sexual and gender differences within the guidelines.

Ample space is given in the second section of the *Italian Journal of Gender-Specific Medicine* to the Round tables in which clinicians, experts, regional representa-

tives and pharmaceutical companies have debated and focused attention on three key issues: the guidelines for gender-specific medicine, the 'hot' topic that is the regional approach to the subject of gender-specific medicine, and the training in gender medicine, academic and otherwise.

This latest issue of 2017 closes a very important cycle for our magazine. We would like to thank those who have followed us with growing interest in these first two and a half years of life. The commitment of all of us to the service and guarantee of gender medicine in Italy and of those who work in the health sector and beyond will continue with increasing force in the months and years to come.

Mariapaola Salmi

Editor in Chief

mp.salmi@libero.it