

2nd World Congress on Gender Specific Medicine and Ageing The Endocrine impact

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Between 8-11 March 2007 was held in Rome the 2nd World Congress on Gender Specific Medicine and Ageing – The Endocrine Impact. The first World Congress on this issue was organized in Berlin (2006).

The differences between men and women in pathology are always known but, surprisingly, the medical community has realized only in the last few years how much they are associated to different diseases and different ways of responding to therapy. The President of the Congress was Prof. Dr. Andrea R. Genazzani. The congress represented a participation opportunity for an international scientific team but Italian and Israeli groups were the most visible.

The Opening Lecture was “Gender preselection: medical, ethical, legal and religious aspects”, held by Prof. Dr. J.G. Schenker from Israel (Hadassa Hospital). The author took a historical, cultural, medical and ethical view of this very new subject. The only controversial discussion about this topic is in the field of

bioethics, because gender preselection in assisted reproduction is technically feasible.

The scientific programme offered very interesting topics, as gender differences in cancer incidence and epidemiology, gender and vulnerability factors, gender differences in ageing and the endocrine impact, gender-related impact on sex steroid receptors, urogenital ageing in men and women., migraine as a gender-related disease, metabolic syndrome as reflection of testosterone deficiency, gender differences in dermatology and brain as a specific gender organ.

Very interesting commentaries were presented about gender differences in cardiovascular disease, including therapeutic implications. The use of hormone replacement therapy (HRT) has become one of the controversial topics in the area of women health. It was discussed the cardiovascular benefit-risk ratio for using HRT. The statistically significant improvement among women taking HRT was decreased incidence of fractures (osteoporosis) but an increased incidence of coronary artery disease (CAD) has

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been noticed (HERS-study: The Heart and Estrogen/Progesterone Replacement Study). A cardioprotective effect may exist in younger healthy postmenopausal women (because estrogen receptors located in the endothelial and smooth muscle cells of the artery wall decline with age). Estrogens are not “drugs for all”. They should be used only in certain groups of women. Estrogen use also reduces the risk and mortality for colon cancer in recent users of postmenopausal HRT.

Another topic of interest was the relationship between gender and cancer. Discussions were done about the new cancer prophylactic vaccine against infection with human papillomaviruses (HPV), which is associated with cervical cancer (the second most prevalent cancer in women). The approval and use of this world’s first preventive vaccine has the potential to significantly reduce women genital cancer.

Colon cancer has a higher incidence in men and surgical menopause in women confers double risk of colon cancer.

Until the late 1960’s, lung cancer was rare in women. Recent studies suggest, however, that women are at higher risk than men for developing lung cancer. This seems to be true for any given level of exposure to cigarette smoke, which is by far the most important risk factor for lung cancer.

The role of sex hormones in immunophysiology was recently appreciated and L.

Ackerman (USA) discussed this topics. Estrogens have a dichotomic action on immune cells: it downregulates the inflammatory immune response but simultaneously upregulates the immunoglobulin production. Relation between sex hormones and autoimmunity genesis is a very interesting medical problem. Autoimmune diseases prevalence show discrepancy between women and men. Systemic lupus erythematosus (SLE) is the most female-dominant of all autoimmune disease with a life time ratio of 9:1 (F/M). Estrogens encourage immunologic process driven by CD4+ T_H2 cells and B cells, whereas androgens enhance CD4+ T_H1 and CD8+ cells activity. Estrogens, androgens and their metabolites and receptors are all involved in immunoregulation and the development of autoreactivity. Estrogens increase cell autoreactive potential, so they are primed to form autoantibody. Patients with SLE metabolize estrogens in a distinct pattern from those observed in unaffected controls. Androgen deficient males have a higher incidence of autoimmune diseases (including SLE). A special attention was accorded to rheumatoid arthritis, “...a female challenge”. (P. Merron, Italy, presented this topic at the evening Opening Lecture).

Beside the interesting subjects discussed at the congress, spring in Rome was, itself, a good compensation for the effort of being there!

