Gender-Specific Aspects in Gastrointestinal Medicine and Surgery

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In the last 10 years, the number of publications dealing with the topic gender medicine has rapidly increased. When conducting a search for the term ‘gender medicine’ on PubMed, the result amounts to more than 40,000 publications. Why?

Gender in medicine has been misunderstood for a long time. Most people assumed that the gender issue in medicine is based on women fighting for more responsibility. On the contrary, the research of gender in medicine actually refers to the analysis of gender aspects in relation to diseases and their outcome.

During the last decade, an increasing amount of knowledge could be gathered about the differences in gender as well as their influence on diagnostic and therapeutic outcome in our patients. Men and women are differently affected in several medical fields. Specific drug effects, signs and symptoms of diseases (especially in cardiopathy), the rate of postoperative serious surgical site infections (SSI), as well as the incidence and outcome of certain diseases are influenced by gender to a large extent.

In 1992, the first person who addressed gender differences in heart diseases and treatment was Karen Berkley. She observed that gender was not reported in 45% of the published studies in esteemed journals [1]. From that time onwards, more research was generated in this field. Since 2004, this has led to a reassessment of pharmaceutical studies in Germany in order to ensure the effectiveness and safety of drugs in both women and men.

The cause of gender differences in many diseases as well as in epidemiology and treatment response is still unknown and requires more attention. Different genes, sex hormones, and immunogenicity were often held responsible without further investigation. However, sex hormones are known to affect and interfere with the cardiovascular system and other

objectives of pharmacovigilance. Immunogenicity of antigen presentation in organ transplantation influences the transplant outcome negatively when gender mismatch has been neglected [2]. There are marked differences between the sexes in their immune response to infections and vaccination, with females often showing significantly higher response rates [3]. Moreover, males with the highest testosterone levels and expression of related gene signatures exhibited the lowest antibody responses, e.g. in the case of influenza vaccination [3].

In this issue of the journal VISZERALMEDIZIN, immunological effects in correlation with gender are being outlined in detail. In addition, metabolic surgery, transplantation, and SSI are addressed as they also correlate with gender.

It is also well known that gender affects gastrointestinal diseases regarding incidence and therapeutic outcome. Gallstone disease and gall bladder cancer, for example, occur predominantly in women [4]. Concerning gender medicine and colorectal cancer, however, men have a higher risk of polyps and tumors than women. Therefore, gender differences are an important factor in epidemiology, clinical presentation, management, and outcome. As a result, more information about this important topic is provided in this issue of VISZERALMEDIZIN.

Overall, in the field of gastrointestinal diseases, epidemiology, treatment regimens, and response to treatment, we are still at the very beginning of understanding the complex relationships linked with gender medicine. This special issue of VISZERALMEDIZIN provides us with the opportunity to alert a wide variety of physicians to this message. Please ask whenever you can: Have you detected a gender difference and does it influence the results? Have you changed your management in the care of your patients?

References

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