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Introduction: new trends in pregnancy and rheumatic diseases

Immunological and epidemiological evidence suggests that female sex hormones play an important role in the aetiology and pathophysiology of chronic inflammatory diseases; however, whether (or when) estrogens are friends or foes in inflammatory/immune-mediated rheumatic diseases is still a matter of debate [1].

Several significant factors generate confusion and opposite conclusions might arise from the relatively superficial translation done from the animal studies to the human condition, the different effects of oestrogens on their different receptors or on different target cells, the different oestrogen concentrations employed and finally, opposite effects (especially on cell proliferation) exerted by different peripheral oestrogen metabolites.

Pregnancy represents a singular condition of physiological interference on hormonal and immunological behaviour in females affected by chronic autoimmune diseases.

For example, one paper in this issue discusses molecular and clinical disease activity markers in RA patients during the third trimester of pregnancy [2]. Furthermore, a further paper discusses when and whether autoantibodies might act as predictors of pregnancy complications [3]. Pregnancy in chronic autoimmune diseases such as SLE, SSc, RA and others is reviewed.

Management of chronic autoimmune diseases and vasculitis in pregnancy is often a challenge. This is particularly true in the patient with organ involvement or organ damage. SLE shows a broad spectrum of disease manifestations ranging from mild symptoms to severe conditions that threaten maternal and fetal health. Similar risks are found in SSc and the different types of vasculitis. The APS alone or complicating the autoimmune diseases is characterized by thrombosis and pregnancy morbidity. Four papers deal with the problems associated with these conditions and address their management [4–7]. A multidisciplinary approach has been found essential in dealing with these high-risk pregnancies and achieving a successful outcome.

Improved diagnostic skills in detecting impaired fetal health have helped to offer early treatment for children at risk though effective prevention of risk is still far away.

After the introduction of biological agents, the management of several rheumatic diseases has changed dramatically. As a consequence of better control of disease activity more patients consider pregnancy. However, pregnancy experience with regard to new drugs is in general scanty and leaves both the patient with a desire for children and the treating physician in a dilemma. Two papers present the actual knowledge on the interaction of immunosuppressive drugs and reproduction [8, 9]. Importantly not only drug treatment during pregnancy and lactation, but also long-term effects on antenatally exposed offspring are discussed. Treatment of infertility in patients with autoimmune rheumatic diseases represents a further condition to be carefully evaluated and a paper is devoted to this issue [10].

In conclusion, the present issue represents the most up-to-date knowledge on the topic of pregnancy and autoimmune rheumatic diseases and how it is managed by the best experts in the field.

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