

GUEST EDITORIAL

THE IMPACT OF ALLERGY ON PREGNANCY



Readers of this journal do not need reminding that allergic conditions have a high prevalence in our population. Pregnancy is of course even more common; therefore it is not surprising that medical practitioners are often consulted by women planning a pregnancy or already pregnant, who suffer from one of these related conditions. Once the fetus has become part of the management equation, practitioners who were confident of their management plan while the woman was not pregnant, often become uncertain and even reluctant to treat conditions that do justify medical management, for fear of harming the pregnancy. The editors are therefore to be commended for their timely request to focus an edition of this journal on the interaction of pregnancy and certain allergy-related diseases.

During pregnancy, the powerful maternal immune system must be circumvented to permit the close association of maternal and fetal cells. Many research efforts in recent years have attempted to define specific changes in maternal immune responsiveness. Although there does appear to be a degree of immune suppression in pregnancy, this does not fully account for the survival of an allograft. Systemic immunity remains largely intact but local (*in utero*) immunity is altered. A critical concept is that both the mother and the fetus contribute to successful pregnancy. The changes in the immune response may however affect the expression of certain maternal disease conditions during pregnancy and in the puerperium, when the physiological changes of pregnancy are reversed. Another overly simplified concept is that of pregnancy as a Th1/Th2-type reaction. T helper cells (Th cells) can be divided into Th1 cells that produce inflammatory cytokines and Th2 cells that produce anti-inflammatory cytokines and promote B-lymphocyte development. In normal pregnancies there is a Th2 bias but conditions such as infections can overcome the immunosuppressive environment at local and systemic levels, generating Th1-type responses.

Certain diseases specific to pregnancy can be explained either wholly or in part on an immunological basis. Examples of these are Rh immunisation leading to hydrops fetalis, and pre-eclampsia. Asthma is the most common chronic medical disease to affect pregnancy. In most cases it is unlikely to adversely affect the pregnancy if good control is maintained. Sadly, deterioration of this condition is often caused by

the unfounded fears of the patient or her doctor regarding the safety of appropriate medications during pregnancy. All drugs commonly used to treat asthma, including systemic steroids are safe when indicated and monitored. In a well researched and practical article, Davel *et al.* point out the dangers of under-treatment, especially in women with severe asthma. In similar fashion Looock explains in his article that allergic rhinitis is easily diagnosed and that much can be done before resorting to medication. However, when medication is indicated, there are safe agents to use, though always in a judicious manner. I suspect that many readers will specifically want to read the opinions of the authors on the use of corticosteroids during pregnancy.

Skin conditions often cause confusion. Certain pre-pregnancy dermatoses can change their character during pregnancy while others may specifically arise during pregnancy. Jordaan informs us that the specific dermatoses of pregnancy represent a heterogenous group of ill-defined pruritic diseases. All of the theme articles address the risk of an atopic diathesis in the offspring. This is an important aspect when counselling the 'pregnant parents' as it is often one of the foremost questions in their minds. Whether anything can be done to decrease the risk of atopic disorders for the newborn child is a closely related question. In this regard Kirsten examines the issue of breastfeeding and diet. Although the evidence is not unequivocal, exclusive breastfeeding for 4-6 months still seems to represent the best advice. Avoiding 'fad' diets during pregnancy and 'breast is best' are principles that still hold true.

Finally, one way of circumventing the problems of pregnancy is to have a stork deliver the baby, or will the newborn then be at higher risk of allergic rhinitis and other atopic conditions? Enjoy the cover picture of the saddlebilled stork, a real South African favourite. The female has a ring of yellow skin (wattle) around the eye. That is not an inflammatory exudate, I promise!



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