Immuno-Molecular Etiology of Recurrent Pregnancy Loss and the Anthropological Perspective

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ABSTRACT It is a well-known fact that pro-inflammatory cytokines exert an adverse effect on conceptus and result in pregnancy failure and there are mutations reported in certain genes regulating the production of these Th-1 type cytokines. In view of the cytokine gene polymorphisms known to cause high and low production of various pro-inflammatory and anti-inflammatory cytokines, a number of studies have been performed to reveal the association between these polymorphisms and recurrent pregnancy loss, but surprisingly contradictory results are reported which may be attributed to inclusion of heterogeneous samples resulting in false positive or false negative results. In the present paper, an attempt has been made to review the previous studies of association between two molecular genetic markers, TNF-α (-308 G/A) and IFN-γ (+874 A/T), and recurrent pregnancy loss.