나이에 고환조직 채취 및 동결보존을 통한 정자확보가 필요하리라 생각된다.

M-5 The Difference of Gene Expression Level at the Maternal-fetal Interface between Normal and Recurrent Spontaneous Abortion Patients

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Objective: The maintenance of human pregnancy involves immunologic, metabolic, vascular and endocrine regulatory processes under genetic control. The conceptus contains paternal gene products that are "foreign" to the maternal host. Therefore immunolgic rejection should occur yet normally does not most likely due to decidual protein secretion also under genetic control. The precise genes and proteins involved have not been precisely identified. Gene expression differences at the maternal-fetal interface between pregnancies in normal controls compared to pregnancies ending in loss from women with a history of recurrent pregnancy loss have not been previously determined. Therefore, we investigated whether such differences existed.

Materials and Methods: cDNA synthesized from purified total RNA isolated from chorionic villi obtained from the maternal-fetal interface between 6 and 8 weeks of gestation from women having elective pregnancy terminations and women experiencing a spontaneous abortion who had a history of recurrent pregnancy loss was used for subtraction analysis. Gene expression was determined by sequence analysis and RT-PCR using appropriate primers. Northern blot analysis and in situ hybridization was used to define the level of expression.

Results: Thus far we have found 3 genes that were more abundantly expressed in the normal controls. These were PP14 (Placental Protein 14), indoleamine-2,3-dioxygenase and an unknown gene which had the largest difference in expression. Mucin-1 was also more abundantly expressed in the controls.

Conclusions: Although the mechanisms that cause recurrent spontaneous abortion are not well-specified, recent studies indicate that mainly immunological factors are involved in provoking recurrent spontaneous abortion. Our results focus on genetic factors at the molecular level. Further research is required to confirm the clinical relevance of these genes. Therefore, finding any abnormal expression of these genes may delineate general health during pregnancy and may help in controlling the management for subsequent pregnancies.