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## Estrogen

## **Telomerase**

=ABSTRACT=

Expression of Estrogen Receptor and Telomerase Activity in Chorionic Villi and Decidua of Early Human Gestation

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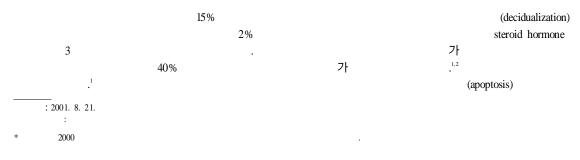
**Objective:** To investigate whether there is any differences between normal pregnancy (NP) and spontaneous abortion (SAB) regarding estrogen receptor (ER) expression and telomerase activity (TA) in the chorionic villi and decidual tissues.

**Methods:** Chorionic villi and decidual tissues were obtained between 6 and 9 weeks' gestation from 14 patients with SAB and 17 normal pregnant women who have undergone an elective abortion. All tissue samples were assayed for ER with enzyme immunoassay and also TA was analysed using telomeric repeat amplication protocol.

**Results**: A significant decrease in ER expression  $(2.81\pm2.77 \text{ fmol/mg})$  of protein; p<.001) was demonstrated in SAB group compared to that of NP group  $(4.56\pm1.85 \text{ fmol/mg})$  in decidua. However, no significant difference in ER expression in chorionic villi was found between the two groups. SAB group showed significantly lower levels of TA than that of NP group in both chorionic villi (21.4% vs. 82.4%; p=.002) and deciduas (7.1% vs. 52.9%; p=.009).

**Conclusion :** Our results suggest that decreased level of ER expression in deciduas might cause decidual senescence and eventually, spontaneous abortion.

Key Words: Spontaneous abortion, Estrogen receptor, Telomerase activity.



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