

Ekspresi Hoxa 10 dan Integrin v3 Pada Endometrium Tikus Pada Fase Sekresi Setelah Stimulasi Rekombinan FSH = Expressions of Hoxa 10 and α v3 Integrin in Rat Secretory Phase Endometrium After Recombinant FSH Stimulation

Anna Wirdiani Fathiah, author

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Abstrak

Faktor transkripsi Hoxa 10 dan gen targetnya integrin v3, keduanya adalah marka penting yang meregulasi kondisi endometrium reseptif. Stimulasi ovarium telah dilaporkan dapat mengganggu reseptifitas endometrium yang berkaitan dengan kegagalan implantasi. Tujuan penelitian ini untuk menganalisis pengaruh stimulasi rFSH terhadap tingkat ekspresi Hoxa 10 dan integrin v3 pada endometrium selama fase sekresi, serta menilai hubungan korelasi keduanya. Metode, dipilih 27 tikus betina dengan siklus estrus normal dibagi dalam kelompok siklus alamiah dan dua kelompok dengan siklus terstimulasi, dilakukan penyuntikan rFSH dosis 12,5 IU dan 25 IU dan 48 jam kemudian dilanjutkan penyuntikan hCG dosis 10 IU. Pengambilan sampel uterus dilakukan pada hari pertama, kedua dan ketiga setelah penyuntikan hCG. Ekspresi kedua marka dinilai menggunakan teknik imunohistokimia dan Western Immunoblotting. Hasil, Ekspresi Hoxa 10 di stroma tidak berbeda antara kelompok kontrol dan distimulasi dosis 12,5 UI ($P > 0,05$). Ekspresi integrin v3 di epitel luminal tidak menurun secara bermakna akibat distimulasi dosis 25 UI ($P > 0,05$) dan perubahan ekspresi integrin v3 di epitel kelenjar juga tidak berbeda bermakna setelah pemberian stimulasi ($P > 0,05$). Kedua marka berkorelasi positif pada hari kesatu ($r = 0,607$) dan hari ketiga ditemukan korelasi negatif ($r = -0,616$). Dari data tersebut disimpulkan bahwa stimulasi rFSH tidak menurunkan ekspresi Hoxa 10 dan integrin v3 pada fase sekresi.

The transcription factor Hoxa 10 and its target gene the v3 integrin, are both essential molecules that regulate receptive endometrial condition. Giving ovarian stimulation has been reported to impair endometrial receptivity in association with implantation failure. The aim of this study was to analyze the effect of rFSH administration on the expression level of Hoxa 10 and v3 integrin in the endometrium during the secretory phase, as well as assess the correlation between the two. Methods, 27 Wistar female rats with normal estrus cycles were selected divided into natural cycle group and two groups were stimulated cycle of rFSH doses of 12.5 IU and 25 IU and 48 hours later followed by injection of hCG dose 10 IU. Uterine sampling was carried out on the first, second and third day after hCG injection. Hoxa 10 and v3 integrin expression was assessed using immunohistochemistry and Western Immunoblotting techniques. As a results, the expression of Hoxa 10 in the stromal cell did not differ between the control group and the group with stimulation dose 12,5 UI ($P > 0,05$). The expression of v3 integrin in the luminal epithelium did not decrease significantly due to stimulation dose 25 UI ($P > 0,05$) and changes in v3 integrin expression in the epithelial glands did not show a significant difference after stimulation ($P > 0,05$). Both proved to be positively correlation on the first day ($r = 0,607$) and on the third day negatively correlation ($r = -0,616$). From these data it was concluded that rFSH stimulation did not decrease Hoxa 10 and v3 integrin expression in the secretory phase.