Pengaruh pemberian kurkumin dan vitamin E terhadap aktivitas angiogenesis plasenta preeklampsia = The effect of curcumin and vitamin E supplementation on angiogenesis activity in preeclamptic placenta

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Abstrak

Tujuan: Membandingkan aktivitas angiogenik plasenta preeklampsia dengan dan tanpa pemberian kurkumin dan vitamin E.

Rancangan Penelitian: Penelitian ini merupakan studi eksperimental in vitro. Plasenta dari ibu hamil preeklampsia (n=11) dibagi dalam 3 kelompok: kelompok kontrol, kelompok pemberian kurkumin dosis 0,01 mM, dan kelompok pemberian vitamin E dosis 20 mg/L Aktivitas angiogenesis ditentukan dengan menilai skor migrasi sel-sel endotel menuju plasenta. Analisis perbedaan aktivitas angiogenesis antar kelompok digunakan tes wilcoxon.

Hasil: Aktivitas angiogenik kelompok pemberian kurkumin dosis 0,01 mM tidak berbeda bermakna dibandingkan kelompok kontrol (p>0,05). Sedangkan, aktivitas angiogenik kelompok pemberian vitamin E dosis 20 mg/L berbeda secara bermakna dibandingkan kelompok kontrol (p< 0,05).

Kesimpulan: Pemberian vitamin E meningkatkan aktivitas angiogenik pada plasenta dari ibu hamil preeklampsia.

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Objective: To compare angiogenic activity in preeclamptic placenta with and without supplementation of curcumin and vitamin E.

Study design: The study was an in vitro experimental study. Placentae were obtained from woman with preeclampsia (n=11) divided into three groups. The first was control, to the second group 0,01 mM curcumin was added and the third with 20 mg/I, vitamin E. Angiogenic activity was assayed using an endothelial cell migration assay. Differences in placental angiogenic activity between three groups were analysed using the Wilcoxon test.

Results: The angiogenic activity in the 0,01 mM curcumin supplementation group was not significantly different than in the control group (p>0,05). While, angiogenic activity in the 20 mg/I, vitamin E group was significantly different than in the control group (p< 0,05).

Conclusion: Vitamin E supplementation increased angiogenic activity in the placenta from women with preeclampsia.