Studi korelasi antara kadar vitamin D dan glukosa jaringan plasenta preeklamsia pada usia kehamilan di bawah 32 minggu = Correlation study between vitamin D and glucose levels in preeclampsia placenta tissue at age of pregnancy under 32 weeks

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Abstrak

Pendahuluan: Di Indonesia, kasus preeklamsia menyebabkan tingginya angka kematian bayi dan anak, yaitu 40% untuk kematian ibu dan 30-50% untuk kematian perinatal. Defisiensi vitamin D diduga mempengaruhi patogenesis preeklamsia. Selain itu, vitamin D diketahui mempengaruhi sensitivitas insulin secara linier, namun pernyataan ini masih memerlukan penelitian lebih lanjut, terutama pengaruh vitamin D pada preeklamsia. Penelitian ini bertujuan untuk membandingkan kadar vitamin D dan kadar glukosa pada jaringan plasenta preeklamsia terutama di bawah 32 minggu, untuk melihat pengaruh vitamin D terhadap kadar glukosa jaringan plasenta. Metode: Penelitian ini merupakan penelitian analitik dan menggunakan desain cross sectional. Sampel plasenta preeklamsia yang digunakan adalah sampel simpanan yang diambil dari RSU Cipto Mangunkusumo dengan rentang tahun 2016-2017, dengan nomor etik: 0878/UN2.F1/ETIK/2018. Sampel plasenta preeklamsia sebanyak 10 sampel. Kadar vitamin D diukur menggunakan kit Elabscience, sedangkan kadar glukosa diukur menggunakan kit Ransel Randox, menggunakan metode spektrofotometri. Data yang diperoleh kemudian dianalisis dengan metode Pearson. Hasil: Kadar vitamin D dan kadar glukosa pada jaringan plasenta preeklampsia di bawah 32 minggu berhubungan terbalik secara lemah berdasarkan korelasi Pearson (p = -0,180). Namun, korelasi ini tidak signifikan menurut uji signifikansi 1-ekor (p = 0,310). Kesimpulan: Korelasi vitamin D dan glukosa pada jaringan plasenta preeklamsia di bawah 32 minggu adalah negatif lemah.

.....Introduction: In Indonesia, cases of preeclampsia cause high infant and child mortality rates, namely 40% for maternal deaths and 30-50% for perinatal deaths. Vitamin D deficiency is thought to influence the pathogenesis of preeclampsia. In addition, vitamin D is known to affect insulin sensitivity linearly, but this statement still requires further research, especially the effect of vitamin D on preeclampsia. This study aims to compare vitamin D levels and glucose levels in preeclampsia placental tissue, especially under 32 weeks, to see the effect of vitamin D on placental tissue glucose levels. Methods: This research is an analytic study and uses a cross sectional design. The preeclampsia placenta sample used was a deposit sample taken from Cipto Mangunkusumo General Hospital with a range of 2016-2017, with an ethic number: 0878/UN2.F1/ETIK/2018. There were 10 samples of preeclampsia placenta. Vitamin D levels were measured using the Elabscience kit, while glucose levels were measured using the Randox Backpack kit, using the spectrophotometric method. The data obtained were then analyzed by the Pearson method. Results: Vitamin D levels and glucose levels in preeclamptic placental tissue under 32 weeks were weakly inversely related based on the Pearson correlation (p = -0.180). However, this correlation was not significant according to the 1-tailed significance test (p = 0.310). Conclusion: The correlation of vitamin D and glucose in preeclampsia placenta tissue under 32 weeks is weak negative.