Hubungan antara GDF-9 dan BMP-15 serum dan cairan folikel dengan kualitas qosit pada perempuan yang menjalani siklus Fertilisasi In Vitro (FIV) = The relationship between GDF-9 and BMP-15 serum and follicular fluid and the quality of oocytes in women who undergo an IVF cycle

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Abstrak

Tujuan : Untuk mengetahui hubungan antara GDF-9 dan BMP-15 Serum dan cairan folikel, untuk memprediksi kualitas oosit pada wanita yang menjalani siklus fertilisasi in vitro (FIV). Metode : Studi Potong Lintang dengan jumlah sampel penelitian sebanyak 30 darah sÃ©rum dan 30 sampel cairan folikel yang diambil saat petik telur (OPU), dilakukan pemeriksaan GDF-9 dan BMP-15 menggunakan kit ELISA. Dilakukan analisa dengan uji korelasi Pearson dan Spearman untuk melakukan analisa hubungan antara GDF-9 dan BMP-15 serum dan cairan folikel dengan parameter-parameter kualitas oosit seperti laju maturasi dan laju fertilisasi. Hasil : rerata usia subyek penelitiann adalah 35,0(26,0-39,0) tahun. Kadar GDF-9 cairan folikel adalah 163,0 pg/ml (48,0-537) dan kadar GDF-9 serum 260,33 pg.ml ± 121,82) sedangkan kadar rerata BMP-15 cairan folikel adalah 58,30 pg/ml ± 31,54 dan kadar BMP-15 serum 74,20 pg/ml (1,0-610). Tidak terdapat hubungan yang bermakna antara kadar GDF-9 serum dan GDF-9 cairan folikel (p =0,245) sedangkan antara BMP 15 serum dan BMP-15 cairan folikel terdapat hubungan bermakna (p =0,001). Simpulan : Terdapat sebaran yang tidak normal kadar GDF-9 serum dan cairan folikel, keduanya tidak berkorelasi. Terdapat korelasi positif kadar BMP-15 serum dan BMP-15 cairan folikel. Terdapat korelasi yang kuat. antara BMP-15 serum dengan laju maturasi. Tidak terdapat korelasi antara kadar GDF-9 serum, GDF-9 cairan folikel dan BMP-15 cairan folikel dengan laju maturasi dan laju fertilisasi. GDF-9 serum-cairan folikel dan BMP-15 serum-cairan folikel tidak dapat memprediksi kualitas oosit.

.....Aim : To determine the relationship between GDF-9 and BMP-15 serum within follicular fluid in order to predict the quality of oocytes in women undergoing In Vitro Fertilisation (IVF). Method : We collected 30 samples of blood serum and 30 samples of follicular fluid on the day of ovum pickup (OPU), and we examined GDF-9 and BMP-15 using ELISA kits. Analysis by Pearson and a partial-correlation was conducted to analyse the correlation between the concentration of GDF-9 and BMP-15 in serum and follicular fluid with general physiological parameters, such as maturation rates and fertilisation rates.Results : The mean age of the subjects was 35,0 (26,0-39,0) years. The level of GDF-9 in the follicular fluid was 163,0 pg/ml (48,0-537), and the level in the serum was 260.33 pg/ml±121,82. The level of BMP-15 in the follicular fluid was 58,30 pg/ml ± 31,54, and the level in the serum was 74,20 pg/ml (1,0-610). There was no correlation between GDF-9 serum and follicular fluid (P = 0.245) but any correlation between BMP-15 and follicular fluid (p = 0.001). Conclusion : There was an abnormal distribution of GDF-9 serum and follicular fluid levels, both of them not correlate. There was a positive correlation between BMP-15 serum and BMP-15 follicular fluid. There was strong correlation between BMP-15 serum and maturation rates. No correlation between levels of GDF-9 serum-follicular fluid, and BMP-9 follicular fluid with maturation and fertilization rates. GDF-9 serum-follicular fluid, BMP-15 serum-

follicular fluid are not able to predict the quality of oocytes.