

عنوان مقاله:

Evaluation of related variables on endothelial progenitor cells in first transient ischemic attack

محل انتشار:

مجله دانشگاه علوم پزشکی شهرکرد، دوره 21، شماره 4 (سال: 1398)

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خلاصه مقاله:

Background and aims: In a transient ischemic attack (TIA), the activation of the endothelial progenitor cells (EPCs) has a prominent role in the formation of collateral vessels. The aim of this study was to evaluate the role of effective variables (e.g., hypertension, diabetes, hyperlipidemia, cardiovascular diseases, a family history of cardiovascular diseases, and statin therapy) on the level of EPCs in TIA. **Methods:** Thirty patients suffering from the first attack of TIA, without having a history of acute cerebral injury, surgery or trauma, and blood disorders were enrolled in this cross-sectional study. Then, flow cytometry was utilized to estimate the level of EPCs CD34 and CD309 and the results were evaluated based on the t test or the Mann-Whitney test. Finally, the Pearson or Spearman correlation was used to establish the relationship between the variables. The level of $P < 0.05$ was considered statistically significant in this study. **Results:** The mean \pm SD number of CD309 in patients with hyperlipidemia was less than those with no hyperlipidemia (3.35 ± 2.77 vs. 5.59 ± 3.85 , $P = 0.02$) and diabetic patients had a significantly higher number of CD309 compared to non-diabetics (6.14 ± 4.89 vs. 3.5 ± 3.49 , $P = 0.05$). Conversely, the mean number of CD34 in groups with or without the studied variables was not statistically significant. The results further revealed that the average total of CD309 and CD34 was significantly lower in patients with hyperlipidemia as compared to those with no sign of hyperlipidemia (9.44 ± 3.05 vs. 6.67 ± 4.6 , $P = 0.02$). Using logistic regression, the intended variables demonstrated no significant effects on endothelial cells, and the relationship between age and the number of progenitor cells was not significant. **Conclusion:** In our study, only hyperlipidemia acted as a factor influencing the numbers of EPCs. Therefore, more studies with larger sample sizes are required to discover the role of these variables on progenitor cells in TIA.

کلمات کلیدی:

Transient ischemic attack; Endothelial progenitor cell; Risk factors

لینک ثابت مقاله در پایگاه سیویلیکا:

