

عنوان مقاله:

Endothelial progenitor cells in patients with non-small cell lung cancer

محل انتشار:

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خلاصه مقاله:

Introduction: Endothelial progenitor cells (EPCs) are known as putative cells in neovasculogenesis during pathological conditions, which are derived from bone marrow. This study was performed to systematically review the EPCs frequency in patients with non-small cell lung cancer (NSCLC) by evaluating the expression of CD133 and vascular endothelial growth factor (VEGF) markers. **Methods:** We search the PubMed and Scopus databases for the following keywords; CD133 AND lung AND VEGF. Inclusion criteria were all the articles studied the expression of both CD133 and VEGF markers in patients with NSCLC. No language and date restrictions were imposed to the search strategy. All the articles that studied only one biomarker or those that investigated the markers expression and EPCs count in patients with other types of tumors except NSCLC were excluded from the study. **Result:** Totally 51 articles obtained following the primary search of both databases. Only 7 of them had the eligibility to be included in this systematic review. Six articles were case- control and one was a cohort type of investigation. Flowcytometry and immunohistochemistry were the most applied methods for estimating the EPCs count and evaluating the expression of markers in circulating peripheral blood and tumors tissue. The expression of EPCs markers was increased in patients with NSCLC compared to healthy control individuals; however, the frequency of EPCs was low in peripheral blood of patients. **Conclusion:** Although it is not clear that circulating EPC numbers are associated with lung cancer patients angiogenesis, EPCs and VEGF levels are elevated in patients with operable NSCLC. The ideal method for evaluating circulating endothelia cells (CECs) or EPCs levels in vivo is still a matter of debate and because of the low number of EPCs in peripheral blood, their detection is technically challenging.

کلمات کلیدی:

Endothelial progenitor cells, Non-Small Cell Lung Cancer, Vascular Endothelial Growth Factor

لینک ثابت مقاله در پایگاه سیویلیکا:

