Association between mobile phones use with malignant brain tumor (GLIOMA): Systematic review and meta-analysis

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Abstract
Nowadays, due to the extensive use of mobile phones and their portability, exposure to the electromagnetic non-ionizing waves is inevitable. Several research has studies the association between the malignant brain tumor of Glioma and the use of mobile phone, the results of which were contradictory. Therefore, the present study intended to conduct a systematic meta-analysis review on the association between the use of mobile phone and the risk of malignant brain tumor. Using the quality assessment scale of Newcastle-Ottawa Scale (NOS), it was realized that 7 out of 9 case-control studies and 2 out of 3 Cohort studies ranked high. In overall, 12 studies (9 case-control and 3 Cohort) were reviewed in the present metaanalysis. The heterogeneity of case-control and cohort studies was respectively 81% (P<0.001) and 47% (P=0.048) and in overall it was 79% (P<0.001). The mean odds ratio of case-control and cohort studies was estimated about REM=1.03 (P=0.762), FEM=0.91 (P=0.597) respectively and it was REM=1 (P=0.996) in overall. The results of the current study did not confirm the assumption that the increased risk of Glioma malignant brain tumor is associated with the use of mobile phones. © 2016, International Journal of Pharmacy and Technology. All rights reserved.

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