Relationship of Childhood Brain Tumors and Hair Dye Usage During Pregnancy

Mehrnoosh Hashemi*, Atiyeh Rezaei1, Tahereh Naji2

1Pharmaceutical Science Branch, Islamic Azad University, Tehran, Iran
2Basic Science Department, Pharmaceutical Branch, Islamic Azad University, Tehran, Iran

Abstract

Brain tumors, which is one of the destructive forms of human being’s cancers, are the second most common children’s cancers. Brain tumors may have an inherited (small percent), acquired reasons due to environmental factors. Nowadays advances in cosmetic industry have increased our ability in the field of youth and beauty. Hair dye products are such innovations. Recent studies showed considerable controversy concerning about the safety of hair dyes (specially looking at risk of brain tumors and cancers). Several studies represent the absorption of toxicant contents of hair-coloring products in sufficient amounts through the scalp. The carcinogen’s removal from hair dyes and appropriate labeling would help reduce the potential risk of brain tumors. The observations showed a widespread use of hair dye which is varies between 66-74% (showing increasing desire of women during pregnancy). Here is a summary of the effect of this increase on brain tumors. Studies have been presented that there was an association between maternal hair dye use and childhood brain tumors (in three of four case studied there was a correlation) and also neuroblastoma risk during childhood period. Even there was an increase in the risk of brain tumors in children of women who start to use hair dyes one month before pregnancy. Finally, it seems the reliability of using hair dye during pregnancy has still been controversial in case of brain tumors cause to the rational approach to recommend avoiding frequent or long use as much as possible.

Keywords: Brain Tumors, Childhood, Hair Dyes, Pregnancy

*Corresponding Author: Mehrnoosh Hashemi
E-mail: Mehrnoosh.h3517@gmail.com