

論 文 要 旨

Statistical differences in cancer incidence rates between nation and 17 regions in Korea during 2002 to 2018

(2002 年から 2018 年の韓国における全国と 17 地域の間での癌罹患率の統計的差異)

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[Background]

Research about cancer incidence trends has been conducted in Korea under the beneficial circumstances such as legislative support and high quality of the data. However, there is little research based on the cancer incidence data after 2013 and about regional trends of organ-specific cancer incidence. One of the reasons results from the type of data offered by KOSIS and National Cancer Center in Korea.

[Objective]

The main purpose is to show significant cancer incidence trends by each region, sex and comparatively long period of time (17 years) with GIS technology providing some hints for further cancer incidence research. Specifically, geographical distributions of certain types of cancer during 17 years are expected to be helpful for policy makers to allocate medical resources more effectively and efficiently. Additionally, visualization with GIS technology and data management with OCR technology used in this research could be referred to and more utilized by the future research.

[Method]

Tukey's modification of the Wilcoxon's signed rank test is utilized based on the data from Annual report of cancer statistics in 2002 ~ 2018. The data is provided as pdf format and converted to Excel format with the help of several software.

[Results]

The regional trends of cancer incidence compared to nationwide in Korea between 2002 and 2018 are revealed in this research. There is no significant correlation between the number of high significances and the population size among the regions. Some regions show increasing or decreasing tendency after the year of 2010.

[Conclusion]

Although this research reveals regional cancer incidence trends from 2002 to 2018 with GIS technology, there are some limitations to be overcome for further research to contribute to an individual's health issues.