The Correlation Between Bladder Cancer and Obesity, Overweight, Physical Inactivity, and Tobacco Use: An Ecological Study in Asian Countries.

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Abstract

BACKGROUND:

Bladder cancer is the ninth most common cancer in the world.

OBJECTIVES:

This study aimed to determine the correlation between age-standardized incidence rates of bladder cancer and some risk factors in Asian countries through an extensive ecological analysis.

METHODS:

This ecological study evaluated the correlation between age-standardized incidence rates of bladder cancer and obesity, overweight, physical inactivity, and tobacco use in 30 Asian countries. To determine the factors that were significantly related to age-standardized incidence rate of bladder cancer, a univariate analysis was performed using simple linear regression. In the next step, variables with p-values less than 0.25 were entered into a multivariate linear regression model.

RESULTS:

The incidence of bladder cancer was higher in countries with higher prevalence of overweight (r2 = 0.36, p < 0.001), obesity (r2 = 0.34, p = 0.001), current daily tobacco use (r2 = 0.17, p = 0.03), and physical inactivity (r2 = 0.13, p = 0.04). The results of multiple regression analysis indicated a direct correlation between the incidence of bladder cancer and overweight (β = 0.15, p < 0.001) and current daily tobacco use (β = 0.21, p = 0.001).

CONCLUSIONS:

There was a significant relationship between the incidence of bladder cancer and overweight and current daily tobacco use. Further epidemiological studies are needed to confirm this relationship.