Pharmacovigilance-2013

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference and Exhibition on
Pharmacovigilance & Clinical Trials

November 18-19, 2013 Hilton San Antonio Airport, USA

Assessing Cancer risks associated with DPP 4 Inhibitors: Role of FAERS in Cancer control and prevention

Xiaodong Feng

California Northstate University College of Pharmacy, USA

Abstract

Background: The Food and Drug Administration Adverse Event Reporting System (FAERS) represents one of the most successful digital tools of media landscape sponsored by the government. Using the FAERS, clinicians have uncovered many critical drug safety issues that create significantly impact on patient care and patient support. However, the role of the FAERS in cancer control and prevention in the changing media landscape and new information ecology remains largely unknown.

Methods: Using the FAERS public database, the adverse event reports (ADRs) associated with widely used anti-diabetic drugs of dipeptidyl peptidase 4 (DPP 4) inhibitors were generated and evaluated. Standardized pharmacovigilance tools were applied to detect the signal for cancer risk. Based on the AERs from 2007 to 2011, reported cancer adverse events associated with DPP 4 inhibitors were analyzed.

Results: Among 12618 ADRs associated with sitagliptin from 2007 to 2011, there were 223 cases of cancer. There was a significant correlation between the cancer proportional reporting ratio and the time ($R = 0.796$, $P<0.001$). Pancreatic cancer, leukemia, lung cancer, breast cancer and bladder cancer were the top five most prevalent cancers reported. Pancreatic cancers accounted for 22% of all combined cancer adverse events. Pharmacovigilance assessment indicated that there was a significant association between pancreatic cancer and DPP 4 inhibitor treatment.

Conclusion: There is a significant increase in cancer reports associated with DDP 4 inhibitor treatment. Considering the limitation of the FAERS, this study signals the potential cancer risk associated with DPP 4 inhibitor drugs. These findings may provide future directions for clinical studies of cancer control and prevention.