以台灣全民健保資料庫分析缺血性中風新診斷率與抗血小板藥物使用之相關因子及趨勢

Trends of Antiplatelet Agent Utilization in Newly-Diagnosed Ischemic Stroke Patients in Taiwan

中文摘要

研究目的：目前臨床上預防缺血性中風復發的藥品以抗血小板藥品爲主。過去，aspirin 是預防缺血性中風復發的第一選擇，近年來，由於 clopidogrel 以及新的複方抗血小板藥品相繼問世，及臨床試驗證實其預防中風復發之療效，故成爲預防缺血性中風復發之選擇藥品。國外已有許多學者探討抗血小板藥品之處方型態分析，但國內並未深入探討，因此本研究利用全民健康保險資料庫之世代追蹤檔，分析 2002 至 2007 年每年缺血性中風的新診斷率，2002 至 2007 年新診斷缺血性中風病人的初次用藥趨勢，及在 2002 年新診斷缺血性中風病人之後每年的用藥趨勢及變化。

研究方法：以台灣國家衛生研究院所提供的健保資料庫歸人檔(200,432 人, 約 1%台閩人口)及基本資料檔作爲研究材料。擷取診斷碼爲 433.xx 或 434.xx 之新發生病患，主要評估 2002 年至 2007 年缺血性中風新診斷率、每年新診斷病人於初診斷時各種抗血小板藥品及各種藥品組合的處方率及 2002 年至 2007 年初診斷抗血小板藥品之使用趨勢。此外，本研究也追蹤 2002 年新診斷病患，估算從 2002 年至 2007 年各種抗血小板藥品及各種藥品組合的處方率並評估藥品使用趨勢變化。本研究次要評估初診斷用藥之相關因子、2002 年新診斷缺血性中風病人之追蹤，包括首次用藥、換藥或停藥的中位時間及平均時間及 5 年之中風或心肌梗塞復發的中位時間或平均時間。

研究結果：2002 至 2007 年缺血性中風新診斷率爲 3.92(每一千人年)、3.80(每一千人年)、3.80(每一千人年)、3.77(每一千人年)、3.78(每一千人年)、3.80(每一千人年)；整體而言，男性的新診斷率(4.32-4.65/每一千人年)高於女性(3.01-3.50/每一千人年)。每年約有 50%新診斷病人於初診斷即開始用藥，並以 Aspirn 爲主，百分比每年分別爲 75.4%、74.1%、80.5%、81.5%、81.3%、86.1%，且有逐年上升的趨勢。clopidogrel 的使用，每年分別爲 4.4%、8.5%、8.0%、6.7%、8.4%、6.6%，經統計結果並無顯著上升趨勢。aspirin/dipyridamole 複方製劑之使用則由 2004 年的 0.2%上升至 2007 年的 2.0%。此外，同時並存消化道疾病的病人相較於未有消化道疾病的病人，傾向使用 clopidogrel(Odds ratio=8.9)。2002 年新診斷病人於初診斷未用藥的病人之首次用藥中位時間爲 1.7 個月。2002 年新診斷病人於研究期間有用藥紀錄者之首次換藥及首次停藥的中位時間分別

爲 4.5 及 3.9 個月。2002 年新診斷病人之 5 年中風或心肌梗塞復發的 25 百分位時間爲 30.7 個月。

結論：缺血性中風的每年新診斷率約 3.77-3.92(每一千人年)，新診斷缺血性中風病人的抗血小板藥品使用主要以 aspirin 爲主，雖然 clopidogrel 及其他新的抗血小板藥品之使用有上升的趨勢，但受限於健保給付及成本考量，其處方率未有大幅度的增加。台灣地區對於抗血小板藥品的使用符合現行之藥品治療指引。

英文摘要

Objective: Currently, antiplatelet agents are the most important drugs to prevent recurrent ischemic stroke and aspirin is the drug of the first choice. Recently, clinical trials have shown that newly available antiplatelet agents, including clopidogrel and a combination formulation, aspirin plus modified-release dipyridamole (ASA+MR-DP), are also effective for preventing recurrent ischemic stroke. The antiplatelet prescribing patterns has been evaluated in several studies but data in Taiwan patients are lacking. Therefore, this study is to evaluate and compare the annual rate of newly diagnosed ischemic stroke, as well as the trend of initial and follow-up prescribing patterns from 2002 to 2007 with the claim-based data of the National Health Insurance in Taiwan.

Method: Data set of a randomly sampled cohort with 200,432 people from the registry for beneficiaries in Taiwan, about 1% of the population, was provided by the National Health Research Institutes. The patients of newly-diagnosed ischemic stroke were identified by the ICD-9-CM diagnostic criteria 433.xx or 434.xx coding. Primary endpoints of the study included the annual newly- diagnosed rate of ischemic stroke during year 2002-2007, and the trend of initial and follow-up antiplatelet agents utilization each year from 2002-2007. In addition, the newly diagnosed patients in 2002 were followed as a fixed cohort to evaluate the trend of antiplatelet agents prescribing pattern over time. Secondary endpoints included the related factors of utilizations of antiplatelet agents at initial diagnosis, the median or mean time of starting antiplatelet therapy for patients not prescribed medication when they were diagnosed, the median or mean time of shifting or withdrawing antiplatelet therapy, and the median or mean time of recurrent ischemic stroke in five years of this fixed cohort.

Results: The annual newly-diagnosed rates of ischemic stroke from 2002 to 2007 were 3.92 per 1000 persons/year, 3.80 per 1000 persons/year, 3.80 per 1000 persons/year, 3.77 per 1000 persons/year, 3.78 per 1000 persons/year, 3.80 per 1000 persona/year respectively. Overall, the male patients had higher newly (4.32-4.65 per 1000 persons/year) diagnosed rates than female patients (3.01-3.50 per 1000 persons/year). Each year, nearly 50% of newly diagnosed patients were prescribed antiplatelet agents at the first visit. aspirin was the most frequently prescribed as their first medication. The usage of clopidogrel increased from 4.4% in 2002 to 8.4% in 2006, and the usage of ASA+MR-DP increased from 0.2% in 2004 to 2.0% in 2007. Patients with gastrointestinal disease were more likely to receive clopidogrel than those without gastrointestinal disease (Odds ratio=8.9). The median time of starting antiplatelet therapy for patients who were not prescribed when they were first diagnosed was 1.7 months. The median time of shifting antiplatelet therapy was 4.5 months. The median time of withdrawing antiplatelet therapy was 3.9 months. The 25 percentile time of recurrent ischemic stroke in five years was 30.7 months.

Conclusion: The annual newly-diagnosed rates of ischemic stroke were 3.77-3.92 per 1000 persons/year. aspirin was the most frequently prescribed medications among the patients of ischemic stroke in Taiwan. Although the use of clopidogrel and ASA+MR-DP increased, it didn’t show a prominent growth because of the policy and its high cost in Taiwan. Overall, the use of antiplatelet agents has conformed to the existing evidences.