THE RAVENNA CARDIOVASCULAR EVALUATION (RACE) COHORT STUDY: A LONG-TERM OBSERVATION PERIOD OF TREATMENT WITH STATINS TO ASSESS PHARMACOUTILIZATION AND EVENTS

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Background. Randomized clinical trials showed that the use of statins induces an effective reduction of cardiovascular events in hyperlipidemic patients with a continuous treatment. The aim of this study was to evaluate the pharmacoutilization of statins in clinical practice as well as the frequency of cardiovascular events (CVEs) both in primary prevention (PP) and in secondary prevention (SP).

Methods. Among the entire patient-population of the Local Health Unit of Ravenna (356,000 inhabitants) a longitudinal cohort study was conducted. In the period between 1996 and 1999, all patients who received prescriptions for a statin were defined eligible for analysis. Pharmaceutical and nosocomial databases were cross-linked to recognise CVEs as well as the pharmacoutilization profile on a patient-by-patient basis. Follow-up variably lasted from 1 to 5 years (until 2000). Patients with renewed prescriptions were compared with those with a single prescription to estimate the odds to develop a CVE.

Results. Patients exposed to statins were 19,178. Patients treated for PP were 15,927 (mean age 58±17; 38% male) while those treated for SP were 3,251 (mean age 66±10; 68% male). A large proportion of patients in PP (6,530/15,927) received just one prescription. This proportion decreased significantly among patients in SP (638/3,251; p<0.001). Nearly all patients with renewed prescriptions (12,010) received a cyclical treatment. On average a cycle lasted 2.36±1.35 months in PP and 2.42±1.32 months in SP (p=0.044). Among patients in PP with renewed prescriptions was registered an odds ratio of CVE of 1.42 (95%CI: 1.25-1.62; p<0.001) compared to patients with single prescription. In SP the odds ratio corresponded to 0.35 (95%CI: 0.29-0.42; p<0.001).

Conclusion. A relevant proportion of patients discontinued the treatment with statins after the first prescription or was cyclically treated. In PP was registered an increase of CVEs but this might be related to a reduced level of continual exposure.

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