SAFETY PROFILE OF BIOLOGICS IN RHEUMATOLOGIC DISEASES IN A REAL WORLD SETTING IN SOUTHERN ITALY: A PROSPECTIVE PHARMACOVIGILANCE STUDY

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Introduction: Since the rapid authorization of biologic disease-modifying antirheumatic drugs (bDMARDs) for the therapy of rheumatoid arthritis (RA), ankylosing spondylitis (AS), and psoriatic arthritis (PsA) in the last decades, the risk/benefit profile of these therapies is still not completely known, especially for long-term treatments. In this context, post-marketing surveillance activities are an important safety data source in a real world setting. For all the above reasons, the aim of this study was to evaluate the Adverse Drug Reactions (ADRs) associated with biologics used in rheumatology during a prospective pharmacovigilance study in Southern Italy.

Materials and methods: All patients treated with at least one bDMARDs in nine rheumatology centers located in Calabria and Sicily between January 1, 2016and December 31, 2018were enrolled. Demographic and clinical characteristics including age, sex, diagnosis, comorbidities, type of drugs used, discontinuation or switch/swap to another biologic and ADRs were collected in a specific database. A descriptive analysis of patients' characteristics, suspected drugs, ADRs and associated factors was performed.

Results: During the study period, 877patients were enrolled [female/male ratio: 1.8, mean age (± standard deviation, SD): 55.4±12.9years]. The most common diagnosis was RA (44.9%) followed by PsA (36.3%), AS (16.8%) and non-radiographic axial spondyloarthritis (nrAxSpA) (2.0%). Hypertension, diabetes mellitus, thyroid disorders, dyslipidaemia and fibromyalgia were the most frequently reported comorbidities. Patients were mostly treated with etanercept (31.6%), adalimumab (19.4%), golimumab (10.5%) and abatacept (10.1%). Furthermore, 432(49.3%) of patients received concurrent treatment with conventional synthetic disease-modifying antirheumatic drugs (csDMARDs). Only 256patients (29.2%) experienced at least one ADR for a total of 340 ADRs registered [8.8% were serious (sADRs)]. Most of ADRs occurred in patients treated with ustekinumab (53.3%), certolizumab pegol (50.0%), secukinumab (46.8%), abatacept (40.4%), tocilizumab (34.8%), golimumab (33.7%), etanercept (31.3%) and adalimumab (20.0%). The most frequent ADRs were general (57.2%) and cutaneous (13.0%) disorders followed by infections (13.3%). In detail, sADRs regarded uveitis (n=4), thrombocytopenia (n=3), bronchitis, neutropenia, severe haemorrhage and tooth abscess (n=2), atrial fibrillation, basal cell carcinoma, breast cancer, cervix injury, chronic obstructive pulmonary disease, measles, multiple sclerosis, oral fungal infection, osteomyelitis, papilloma virus infection, pneumonia, progressive multifocal leukoencephalopathy and rhinitis (n=1). A total of 206patients (23.5%) switched/swapped from at least one to another bDMARDs and 49patients (5.6%) have discontinued treatment or resulted lost to follow-up.

Discussion and conclusions: Our results confirmed the crucial role of active pharmacovigilance to stimulate ADRs reporting in a real world setting. Notwithstanding the positive increase of ADRs reporting, some safety concerns still remain undetected. The collection of data from clinical practice should be endorsed to better define the safety profile of bDMARDs in rheumatology.