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AB0485

DOES THE REASON OF DISCONTINUATION OF THE FIRST TNF INHIBITOR INFLUENCE THE RESPONSE TO THE SECOND TNF INHIBITOR IN SPONDYLOARTHRITIS? PILOT STUDY FROM THE MOROCCAN RBSMR REGISTRY

T. Fatima Zahrae¹, T. Latifa², H. Rkain², I. Hmamouchi², L. Achemlal², I. El Bouchti³, A. Elmaghraoui², I. Ghoulani⁴, H. Hassikou⁵, T. Harzy⁶, L. Ichchou⁷, O. Mkinsi⁸, R. Niamane⁹, R. Bahiri², F. Allali². ¹Faculty of Medicine and Pharmacy of Tangier, Adelmalek Essaadi University, Rheumatology, Tangier, Morocco; ²Faculty of Medicine and Pharmacy of Rabat, Mohammed V University, Rheumatology, Rabat, Morocco; ³Arazi University Hospital, Rheumatology, Marrakech, Morocco; ⁴University Hospital of Agadir, Rheumatology, Agadir, Morocco; ⁵Military Hospital Moulay Ismail, Hassan II University Hospital, Rheumatology, Meknes, Morocco; ⁶Hassan II University Hospital, Rheumatology, Fez, Morocco; ⁷Mohammed VI University Hospital, Rheumatology, Oujda, Morocco; ⁸Ibn Rochd University Hospital, Rheumatology, Casablanca, Morocco; ⁹Military Hospital Avicenne, Mohammed VI University Hospital, Rheumatology, Marrakech, Morocco

Background: In rheumatoid arthritis, studies have shown that the response to a second TNF inhibitor is better if the first TNF inhibitor was stopped for a secondary failure or adverse event compared to a primary failure [1,2]. However, few studies have provided evidence regarding the response to a second TNF inhibitor based on the reason for discontinuation of the first TNF inhibitor in patients with a diagnostic of spondyloarthritis (SpA).

Objectives: To evaluate the efficacy of the 2nd TNF inhibitor in real life from a cohort of patients with SpA from the Moroccan registry of biological therapies in rheumatic diseases (RBSMR Registry), according to the reason for discontinuation of the 1st TNF inhibitor.

Methods: We have included from the RBSMR Registry any patient with a diagnosis of SpA starting a 2nd TNF inhibitor on inclusion in the registry or during the 1st year of follow-up. A descriptive study was conducted by measuring the therapeutic maintenance of the 2nd TNF inhibitor as well as the disease activity in different groups of patients according to the reason for stopping the first TNF inhibitor: stopping for ineffectiveness, side effect or non-availability of the drug.

Results: Of the total 194 patients with SpA included in the RBSMR registry, 40 patients were on their 2nd TNF inhibitor at one year follow-up. The mean age of the patients was 43.6 ± 15.1 with a male predominance (57.5%) and a mean of disease duration of 13.75±6.95 years. At 1 year, treatment was maintained in 72.5% of all patients: 100% after ineffectiveness, 82% after discontinuation for side effects and 52.9% for unavailability of the first TNF inhibitor. Moderate disease activity as defined by an Ankylosing Spondylitis Disease Activity Score using ASDAS-CRP <2.1 was achieved at 1 year in 75%, 64.7% and 52.9% respectively in patients who stopped their first TNF inhibitor for side effects, ineffectiveness or unavailability of treatment.

Conclusion: This pilot study gives us a small insight into the fate and efficacy of the 2nd TNF inhibitor based on the reason for discontinuation of the first. The follow-up data at 2 and 3 years will allow us to include more patients and thus be able to do a real statistical study with a comparison between the different groups.

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ONE-YEAR DIRECT COSTS OF BIOLOGICAL THERAPY IN ANKYLOSING SPONDYLITIS AND ITS PREDICTIVE FACTORS: DATA FROM THE MOROCCAN RBSMR REGISTRY

S. Bahloul¹, H. Rkain², S. Fellous², S. Ahid³, R. Abouqal⁴, T. Latifa², I. Hmamouchi⁵, L. Achemlal⁶, I. El Bouchti⁷, A. EL Maghraoui⁸, I. Ghoulani⁹, H. Hassikou⁹, T. Harzy¹⁰, I. Linda¹¹, O. Mkinsi¹², R. Niamane¹³, R. Bahiri², F. Allali². ¹El Ayachi Hospital, Rheumatology, Salé, Morocco; ²El Ayachi Hospital, Rheumatology, salé, Morocco; ³Mohamed 5 university, Pharmacoeconomic - pharmaco epidemiology Laboratory, RABAT, Morocco; ⁴Mohamed 5 university, laboratory of biostatistical clinical and epidemiological research,

RABAT, Morocco; ⁵Provincial hospital of temara, Rheumatology, Temara, Morocco; ⁶military hospital Mohamed 5, Rheumatology, RABAT, Morocco; ⁷Razi unvesity Hospital, Rheumatology, Marrakech, Morocco; ⁸university hospital, Rheumatology, agadir, Morocco; ⁹military hospital moulay ismail, Rheumatology, Meknes, Morocco; ¹⁰Hassan II university hospital, Rheumatology, Fes, Morocco; ¹¹Mohamed 5 university, Rheumatology, OUJDA, Morocco; ¹²Ibn Rochd university Hospital, Rheumatology, Casablanca, Morocco; ¹³military hospital avicenne, Rheumatology, Marrakech, Morocco

Background: NA

Objectives: To estimate the annual direct costs of biological therapies in Spondyloarthropathies (SpA) and to establish possible factors associated with those costs.

Methods: The main data source was the Moroccan registry of biological therapies in rheumatic diseases (RBSMR). We included SpA patients with available 1-year data. Variables related to socioeconomic status, disease and biological therapy were collected. Differences in costs across groups were tested by Mann–Whitney and Kruskal–Wallis tests. Correlations analysis was performed in search of factors associated with high costs.

Results: We included 89 SpA patients. The mean age was 40.6± 13.6 years, with male predominance 68.9 %. Patients received one of the following therapies: TNF-blockers (n =79), Biosimilar of TNF-blockers (n =8) and IL17-blockers (n =2). Median one-year biologic costs per patient were 9 569, 39 €. The total annual of biotherapies in AS patients was 851 675, 98 €.

Figure 1 Annual mean drug costs per treated patient (€: Euro)

The costs are presented in Euro using an exchange rate of (1 Moroccan Dirham = 0.091Euro).

TNF-blockers constituted 95 % of the total annual budget. Biosimilar of TNF-blockers and IL17-blockers represented 3 % and 2 % of this overall budget, respectively. Although the costs were not significantly different in terms of gender or level of study, the insurance type significantly affected the cost estimation.

No correlation was found between the annual direct costs of biotherapies and body mass index nor with BASFI or BASDAI.

Conclusion: In Morocco, a developing country, the annual direct costs of biological therapies are high in AS patients. Our results may contribute to the development of strategies for better governance of these costs.

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Spondyloarthritis - clinical aspects (other than treatment)

AB0487

HEPSIDINE LEVEL IN PATIENTS WITH ANKYLOSING SPONDYLITIS, RELATIONSHIP WITH HEMOPOESIS AND FERROKINETICS

O. Zviahina¹, S. Shevchuk¹. ¹National Pirogov Memorial Medical University, Vinnytsya, Internal Medicine Chair # 2, Vinnytsya, Ukraine

Background: Hypofermia, as a manifestation of systemic inflammation, is quite common in patients with ankylosing spondylitis (AS). Anemic syndrome can be represented by anemia of chronic disease (ACD), iron deficiency anemia (IDA) and their combination. Its frequency of occurrences ranges from 18.5 to 45.8 %. The discovery of the hormone hepcidin in 2001 changed the perception of iron metabolism disorders and demonstrated its association with the inflammatory component. Over the last decade, scientific databases have accumulated a lot

of information about hepcidin and its role in the development of anemia and the response to inflammation. However, in the context of the AS, such data are contradictory and therefore need further study.

Objectives: To determine the level of hepcidin in patients with ankylosing spondylitis and to assess its relationship with hematopoiesis and ferrokinetics.

Methods: The hepcidin levels of 76 patients with ankylosing spondylitis (13 women and 63 men with a mean age of 43.67±0.97 years). The diagnosis of AS was made according to the New York modified criteria of 1984. All patients were divided into three groups: without anemia (n=47), with anemia (n=29) and the control group, representative by age and sex (n=26). According to the percentile analysis, all patients were divided into a group with an optimal <25 ng/ml, extremely high - 25-35 ng/ml and a high level of hepcidin > 35 ng/ml. In addition to hepcidin, hematopoiesis and ferrokinetic parameters were measured in each patient: hemoglobin (Hb), erythrocyte, MCV, serum iron, total serum iron-binding capacity (TIBC), serum ferritin, transferrin saturation (TS). Statistical processing of the obtained results was performed with the use of statistical software package "Microsoft Office Excel 2007".

Results: When conducting a percentile comparison in 95 % of people in the control group, the level of hepcidin was in the range of 17.97-38.8 ng/ml ($P_{95} - P_{99}$), and in patients with AS in 95 % - 14.62-87.38 ng/ml. At P_{95} , the level of hepcidin in patients with AS was 2.3 times higher than in P_{95} control group. Comparing the mean values of hepcidin, a significant difference was found between the group of patients without anemia, where it was 36.08±2.57 ng/ml and the group of patients with anemia, where the level of hepcidin was 51.77±4.62 ng/ml. The lowest level of hepcidin was in patients with IDA (35.8 ±7.50 ng/ml), and the highest (62.78±5.94 ng/ml) - among patients with ACD. The group of patients with ACD and iron deficiency, according to the levels of hepcidin (48.53±9.50 ng/ml) took an intermediate place.

In terms of hematopoiesis and ferrokinetics, the level of hemoglobin and erythrocytes did not differ significantly between the groups of optimal, extremely high and high levels of hepcidin. According to the levels of serum iron, TS and ferritin in the group of patients with anemia, a significant association with hepcidin was established (with increasing levels of hepcidin, the values of serum iron, TS and ferritin also increased). In contrast, sTfR levels were the highest in the group with optimal hepcidin levels (6.02±0.71 mg/l) and decreased to 4.88±0.64 mg/l in the group with high hepcidin levels. Such changes in hematopoiesis and ferrokinetics were explained by the accumulation of mostly people with symptoms of ACD in the group with high levels of hepcidin, and the group with optimal levels of hepcidin consisted mainly of patients with IDA.

Conclusion: Patients with AS have elevated serum hepcidin levels, it is higher in individuals with anemic syndrome than in patients without anemia and is associated with serum iron, TS and ferritin levels.

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AB0488

SPONDYLOARTHRITIS DISEASE BURDEN AS PERCEIVED BY PATIENTS: BASELINE PATIENT-REPORTED OUTCOME DATA FROM THE ITALIAN PROSPECTIVE SIRENA STUDY

R. Foti¹, G. Cardinale², L. Costa³, F. Franceschini⁴, F. Ciccio⁵, A. Marchesoni⁶, G. Guggino⁷, M. Rossini⁸, E. Lubrano DI Scorpaniello⁹, B. Frediani¹⁰, M. S. Chimenti¹¹, G. Bianchi¹², G. Gallo¹³, S. Marelli¹⁴, E. Favalli¹⁵ on behalf of SIRENA Study Group. ¹Azienda Ospedaliero Universitaria Policlinico Vittorio Emanuele, U.O. Reumatologia, Catania, Italy; ²Distretto nr. 1 ULSS6 Euganea, U.O.S. Reumatologia, Padova, Italy; ³Università degli Studi di Napoli Federico II, U.O.C. Reumatologia, Dipartimento di Medicina Clinica e Chirurgia, Naples, Italy; ⁴ASST Spedali Civili, Università di Brescia, U.O.C. Reumatologia and Immunologia Clinica, Dept of Clinical and Experimental Sciences, Brescia, Italy; ⁵Università della Campania L. Vanvitelli, U.O.C. Reumatologia, Dipartimento di Medicina di Precisione, Naples, Italy; ⁶ASST Centro Specialistico Ortopedico Traumatologico Gaetano Pini – CTO, S.C. Day Hospital di Reumatologia, Milan, Italy; ⁷AOU Policlinico Paolo Giaccone e Università degli Studi di Palermo, U.O. Reumatologia, Palermo, Italy; ⁸Azienda Ospedaliera Universitaria Integrata, U.O.C. Reumatologia, Verona, Italy; ⁹Università degli Studi del Molise, U.O.S.V.D. Reumatologia, Dipartimento di Medicina e Scienze della Salute, Campobasso, Italy; ¹⁰Azienda Ospedaliera Universitaria Senese, U.O.C. Reumatologia, Siena, Italy; ¹¹Università di Roma Tor Vergata, Reumatologia, Allergologia e Immunologia Clinica, Dipartimento di Medicina dei Sistemi, Rome, Italy; ¹²ASL3 Genova, S.C. Reumatologia, Genova, Italy; ¹³Azienda Provinciale Sanitaria di Ragusa, U.O. Reumatologia e Medicina Generale, Lungodegenza Ospedale Busacca, Scicli (RG), Italy; ¹⁴Janssen, Medical Affairs Department, Immunology, Cologno Monzese (MI), Italy; ¹⁵ASST Centro Specialistico Ortopedico Traumatologico Gaetano Pini – CTO, S.C. Reumatologia, Milan, Italy

Background: Previous studies have compared Patient-Reported Outcomes (PROs) in Spondyloarthritis (SpA); a recent one has found similarity in Psoriatic Arthritis (PsA) and axial patients¹.

Objectives: To describe PROs at SpA diagnosis (new or confirmed), by type of SpA and by gender.

Methods: SIRENA is an Italian, prospective Registry of SpA patients diagnosed according to ASAS criteria and naïve to any DMARDs. At inclusion, patients were classified as predominant axial (AxSpA) or mainly peripheral (pSpA). PROs showed in the Table 1 were collected and analysed descriptively.

Table 1. PhGA and PROs at diagnosis*

	AxSpA*			pSpA		
	All (n=123)	Women (n=64)	Men (n=58)	All (n=227)	Women (n=109)	Men (n=118)
PhGA, n	115	60	54	222	105	117
mean (SD)	50.2 (28.6)	54.8 (26.7)	45.0 (30.1)	45.4 (25.9)	49.9 (25.6)	41.3 (25.6)
median (min, max)	52.0 (0-100)	62.0 (0-100)	43.5 (0-100)	48.5 (0-100)	50.0 (1.0-100)	40.0 (0-95.0)
PtGA, n	112	59	52	209	102	107
mean (SD)	56.4 (27.8)	61.5 (25.8)	50.3 (29.2)	50.3 (26.2)	56.4 (23.1)	44.5 (27.7)
median (min, max)	63.0 (0-100)	70.0 (2.0-100)	50.0 (0-100)	50.0 (0-100)	58.5 (7.0-100)	47.0 (0-100)
Pain VAS score, n	113	60	52	207	101	106
mean (SD)	56.7 (28.3)	61.1 (26.6)	50.6 (29.1)	51.9 (26.8)	57.4 (25.3)	46.8 (27.3)
median (min, max)	60.0 (0-100)	69.5 (2.0-100)	50.0 (0-100)	53.0 (0-100)	61.0 (0-100)	48.5 (0-100)
Sleep VAS score, n	113	60	52	211	103	108
mean (SD)	55.3 (29.3)	57.4 (29.5)	52.3 (29.2)	44.0 (30.1)	50.4 (29.8)	37.9 (29.2)
median (min, max)	59.0 (0-100)	61.5 (0-100)	53.0 (0-100)	44.0 (0-100)	53.0 (0-100)	34.0 (0-100)
BASFI, n	110	58	51	133	65	68
mean (SD)	4.6 (2.8)	5.2 (2.6)	3.9 (2.8)	3.5 (2.6)	4.0 (2.6)	3.1 (2.4)
median (min, max)	5.1 (0-9.7)	5.8 (0-9.4)	3.6 (0-9.6)	2.9 (0-10.0)	3.9 (0-10.0)	2.45 (0-8.9)
BASDAI, n	112	59	52	139	70	69
mean (SD)	5.2 (2.4)	5.8 (2.3)	4.5 (2.3)	5.2 (2.3)	5.8 (2.1)	4.6 (2.3)
median (min, max)	5.5 (0-9.3)	6.2 (0-9.3)	4.5 (0-9.2)	5.5 (0.2-10.0)	6.1 (1.0-10.0)	4.8 (0.2-9.2)
HAQ-DI score, n	109	58	50	203	99	104
mean (SD)	0.9 (0.7)	1.1 (0.7)	0.6 (0.6)	0.7 (0.7)	0.9 (0.7)	0.6 (0.6)
median (min, max)	0.8 (0.0-2.5)	1.1 (0-2.5)	0.5 (0-2.3)	0.6 (0.0-2.8)	0.8 (0-2.8)	0.4 (0-2.6)
WPAI						
% work time missed, n	49	19	30	107	45	62
mean (SD)	7.3 (21.4)	4.2 (9.5)	9.2 (26.3)	8.8 (24.7)	8.6 (25.6)	8.9 (24.3)
median (min, max)	0 (0-100)	0 (0-35.1)	0 (0-100)	0 (0-100)	0 (0-100)	0 (0-100)
% impairment at work, n	67	33	34	134	61	73
mean (SD)	48.2 (31.9)	58.5 (26.6)	38.2 (33.7)	39.7 (31.4)	45.4 (30.9)	34.9 (31.2)
median (min, max)	50.0 (0-100)	60.0 (0-100)	25.0 (0-100)	40.0 (0-100)	50.0 (0-100)	30.0 (0-100)
% overall work impairment, n	48	19	29	106	45	61
mean (SD)	44.1 (33.0)	52.4 (27.9)	38.7 (35.3)	40.1 (33.0)	45.1 (33.1)	36.4 (32.7)
median (min, max)	45.0 (0-100)	60.0 (0-100)	20.0 (0-100)	40.0 (0-100)	50.0 (0-100)	30.0 (0-100)
% activity impairment, n	100	53	46	183	93	90
mean (SD)	56.7 (28.6)	63.4 (23.9)	48.0 (31.0)	48.5 (30.3)	55.3 (28.7)	41.4 (30.4)
median (min, max)	60.0 (0-100)	70.0 (0-100)	50.0 (0-100)	50.0 (0-100)	60.0 (0-100)	40.0 (0-100)

* The sum does not add up to the total because of some missing values.

Results: From 23 sites, 123 AxSpA and 227 pSpA patients were analysed. Diagnosis was new in 58% of AxSpA and 77% of pSpA. 85.5% of the pSpA had PsA, while in AxSpA the most frequent type was Ankylosing Spondylitis (48.8%). Time from symptom onset to diagnosis was higher in AxSpA than in pSpA (median 36 vs 24 months, respectively). At inclusion, composite disease activity measures showed high disease activity for AxSpA (mean ASDAS-CRP 3.1) and moderate disease activity for pSpA (mean DAS28 3.6; mean DAPSA 22.5). AxSpA patients had numerically worse values than pSpA in all the PROs collected, except for BASDAI score that was similar (mean 5.2). For both AxSpA and pSpA, all PROs were worse in women than men, except