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FRI0548

EFFICACY AND SAFETY OF TOCILIZUMAB IN SYSTEMIC AND POLYARTICULAR JUVENILE IDIOPATHIC ARTHRITIS – DATA OF THE BIKER REGISTRY

Ariane Klein¹, Gerd Ganser², Ralf Trauzeddel², Kisten Minden², Christoph Rietschel², Jasmin Kuemmerle-Deschner², Gerd Horneff¹. ¹BIKER-Registry, Sankt Augustin, Germany; ²BIKER-Registry, Sankt Augustin, Germany

Background: Since 2011 Tocilizumab is approved for systemic juvenile idiopathic arthritis (JIA) and since 2013 for polyarticular JIA

Objectives: To describe efficacy and safety of Tocilizumab in clinical practice in polyarticular (pJIA) and systemic JIA (sJIA) patients using the German Biologics registry (BiKeR)

Methods: Baseline demographics and disease activity parameters have been documented. Efficacy was determined using the JADAS10 prospectively. Safety assessments were based on adverse events reports (AE) processed according to MedDRA

Results: Until October 1, 2018, 345 JIA patients treated with Tocilizumab were registered, representing 635 patient-years (PY) of observation. The cohort treated with Tocilizumab had experienced disease duration of 5.5 +/-4.3 years (mean+/-SD) for sJIA and 5.9+/-4.1 years for pJIA. sJIA/pJIA patients received pretreatment with MTX 72%/96%, Anakinra 23%/1%, Adalimumab 4%/60%, Etanercept 30%/69%, Canakinumab 2%/0%. Concomitantly, sJIA/pJIA patients received NSAIDs 64%/57%, systemic steroids 72%/35%, MTX 55%/54%, other DMARDs 4%/8%. At last follow-up, 63%/60%/51%/43% of sJIA and 56%/49%/40%/30% of pJIA patients reached JIAACR30/50/70/90 criteria. After 2 years of treatment JADAS remission was reached by 50%/43% and JADAS minimal disease activity by 67%/67%.

586 AE were reported during exposure plus 90 days of observation. The rate was significantly higher in sJIA (104/100PY [95% CI 92-119]) than in pJIA patients (79 [79-90]; RR 1.3; p=0.003). 75 qualified as serious AE (SAE) with a higher rate in sJIA (22[16-29] vs. 8 [5-12], RR 2.6; p<0.001). The most frequent AE in the sJIA/pJIA cohort were grouped in the MedDRA SOC infections and infestations (n=92/76). Compared to pJIA, rates were significantly higher in sJIA patients for blood and lymphatic (RR 2.4; p=0.019), immune system (RR 2.6; p=0.04), infections & infestations (RR 1.7, p<0.001) and nervous system disorder (RR 2.6, p=0.012) and lower for general and administration site (RR 0.4; p=0.023). 169 patients (49%) discontinued treatment, 17% due to remission, 22% due to lack of efficacy and 9% because of intolerance.

Conclusion: The analysis adds to the established safety profile of tocilizumab in paediatric patients with systemic & polyJIA. Differences were noted between pJIA and sJIA cohorts, the latter with higher rates of total number of adverse events, serious AE, infections and cytopenias, probably due to higher doses or shorter application intervals. No new safety signals specific to the paediatric population were identified in this large cohort of JIA patients.

	sJIA (n=109)	pJIA (n=239)	RR/p
All AE (rate[95%CI])	234(104[92-119])	252 (79[70-90])	0.76/0.003
SAE	49 (22[16-29])	26 (8[5-12])	0.38/<0.001
blood & lymphatic system ¹	20 (9[6-14])	12(4[2-7])	0.42/0.019
gastrointestinal disorders	13 (6[3-10])	30(9[7-14])	n.s.
general disorder & administration site condition ²	9 (4[2-8])	30 (9[7-14])	2.4/0.023
immune system disorders ³	13 (6[3-10])	7 (2[1-5])	0.38/0.040
infections and infestations ⁴	92 (41[33-50])	76 (24[19-30])	0.59/<0.001
injury, poisoning and procedural complications	7 (3[1-7])	10 (3[2-6])	n.s.
neoplasms benign, malignant and unspecified (incl cysts and polyps)	1 (0[0-3])	2(1[0-3])	n.s.
nervous system disorders ⁵	20 (9[6-14])	11(3[2-6])	0.39/0.012
skin and subcutaneous tissue disorders	11(5[3-9])	11(3[2-6])	n.s.

MedDRA-SOC: Rates are outlined as number during exposure + 90 days follow up, censored if an alternative biologic has been applied. 1 MAS, neutrophil, thrombocytopenia; 2 nausea, aphthosis; 3 allergic reactions; 4 viral and bacterial infections; 5 seizures

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sJIA

polyJIA

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SARILUMAB, A HUMAN MONOCLONAL ANTIBODY TO THE INTERLEUKIN-6 (IL-6) RECEPTOR, IN POLYARTICULAR-COURSE JUVENILE IDIOPATHIC ARTHRITIS (PCJIA): A 12-WEEK MULTINATIONAL OPEN-LABEL DOSE-FINDING STUDY

Fabrizio De Benedetti¹, Inmaculada Calvo Penadés², Nadina E. Rubio Pérez³, Alexey Maschan⁴, Pierre Quartier⁵, Zbigniew Żuber⁶, Marina Stanislav⁷, Raul Barria⁸, Daniel Clemente Garulo⁹, Gabriel Vega Cornejo¹⁰, Nancy Liu¹¹, Christine Xu¹¹, Angeliki Giannelou¹², Bolanle Akinlade¹², Lydie Baret-Cormel¹³, on behalf of DR113925 investigators. ¹Ospedale Pediatrico Bambino Gesù, Rome, Italy; ²Instituto de Investigación Sanitaria La Fe, Valencia, Spain; ³University Hospital Dr. José Eleuterio González, Monterrey, Mexico; ⁴Centre of Pediatric Hematology, Oncology and Immunology, Moscow, Russian Federation; ⁵Necker Hospital, Paris, France; ⁶Andrzej Frycz Modrzewski Krakow University, Krakow, Poland; ⁷VA Nasonova Research Rheumatology Institute, Moscow, Russian Federation; ⁸Bioreuma, Concepción, Chile; ⁹Hospital Infantil Universitario Niño Jesús, Madrid, Spain; ¹⁰CREA de Guadalajara, Jalisco, Mexico; ¹¹Sanofi, Bridgewater, NJ, United States of America; ¹²Regeneron, Tarrytown, NY, United States of America; ¹³Sanofi, Paris, France

Background: Sarilumab blocks IL-6 from binding to membrane and soluble IL-6 receptor-α. Sarilumab is approved for adults with rheumatoid arthritis (RA) and is being investigated in a Phase 2 trial (NCT02776735)