The level of antibodies to pneumococcal capsular polysaccharide was determined using the EIA PCP IgG kit (TestLine Clinical Diagnostics s.r.o., Czech Republic) before vaccination, 1, 3 and 12 months after vaccination.

Results: The dynamics of the concentration of antibodies to pneumococcal capsular polysaccharide in patients with SpA is presented in the Table 1.

Table 1. Concentration of pneumococcal antibodies, U/ml, Me [25; 75 percentile]

1 visit (initial)	2 visit (after 1 month)	3 visit (after 3 month)	4 visit (after 12 month)
80.0 [35.2; 154.0]	160.1 [73.5; 245.7] *	214.5 [103.2; 255.0] **	175.0 [120.1; 260.1] *

*p=0.01 **p=0.005

At 1, 3 and 12 months after vaccination, the concentration of antibodies to pneumococcal capsule polysaccharide was significantly higher compared to the baseline values. In 81% of patients, vaccination tolerance was good. Reactions at the injection site (pain, swelling and hyperemia of the skin up to 2 cm in diameter), resolved independently after 1-5 days, were observed in 6 patients. In 2 patients, a severe local reaction was registered in the form of pain in the arm, infiltration and hyperemia of the skin up to 8 and 15 cm in diameter, respectively, accompanied by low-grade fever in one patient for 2 days, and febrile fever in the other for 3 days. In both cases, these symptoms were completely stopped after administration of paracetamol and antihistamines. Exacerbation of SpA and the emergence of new autoimmune disorders were not detected. During the follow-up period, no patients developed lower respiratory tract infections. Patients suffering from frequent sinusitis and otitis reported the absence of these infections after vaccination.

Conclusion: The obtained data indicate satisfactory immunogenicity and good tolerability of PPV-23 in patients with SpA. Further studies are needed to better assess the immunogenicity and safety of vaccine, as well as to study of the influence of anti-rheumatic therapy on the effectiveness of immunization.

Disclosure of Interests: None declared.

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POS1152 COMORBID INFECTIONS IN PATIENTS WITH SPONDYLOARTHRITIS.

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Background: Data on the frequency and structure of comorbid infections (CI) in spondyloarthritis (SpA) are few and contradictory.

Objectives: The aim of the study was to study the frequency and structure of CI in the inpatient population of SpA patients in the course of a one-moment retrospective study.

Methods: The study included 208 patients with SpA (121 men, 87 women, mean age 39.1±12.2 years) who were hospitalized at the V.A. Nasonova Research Institute of Rheumatology. Ankylosing spondylitis was diagnosed in 133 patients, psoriatic arthritis - in 57, spondyloarthritis associated with Crohn's disease - in 1, undifferentiated spondyloarthritis - in 17. The majority of respondents had higher education (60.6%). None of the patients consumed alcohol on a daily basis, 124 patients never smoked. The Charlson comorbidity index, equal to 0, had 98 respondents, 1 - 51, 2 - 27, 3 - 15, 4 - 10, 5 or more - 7. Most patients (n=168) received nonsteroidal anti-inflammatory drugs (NSAIDs), as well as glucocorticoids-GC (average duration of administration 239.5±65.8 months), methotrexate-MT (32.4±46.2), sulfasalazine (21.0±32.1), leflunomide (24.0±46.6), biological drugs - TNF-α inhibitors (21.5±23.3), inhibitors of interleukin (iIL)-12/23 (9.0±5.2), iIL-17 (11.0±9.3). Patients were interviewed by a research doctor with the completion of a unified questionnaire, additional data were obtained from medical documentation.

Results: Leading in the structure of CI in patients with SpA were respiratory tract infections: acute nasopharyngitis (n=168), tonsillitis (74), acute bronchitis (34), sinusitis (33), pneumonia (29, including 9 cases by the virus SARS-CoV-2), influenza (31), tuberculosis-TB (5, including 2 cases on infliximab therapy, which was the reason for withdrawal of the drug). Infectious diseases of other localization include herpes-viral infections (n=109), mycoses (51), urinary tract infections (47), conjunctivitis and blepharitis (37), otitis (25), genital infections (15), skin infections (14), intestinal infections (13), COVID-19 without lung damage (19), nervous system infections (2), bone infections (2), chronic hepatitis B (1), chronic hepatitis C (1), HIV infection (1), rubella in adulthood (1), measles in adulthood (1). 20.2% of patients reported more frequent development of CI after the onset of the SpA: 35 of them received immunosuppressive therapy, 7 - monotherapy of NSAIDs. In SpA patients receiving immunosuppressive drugs, there was an increase in the frequency of acute nasopharyngitis (more often 3 times a year), sinusitis, acute bronchitis, pneumonia and herpes-viral infections, in particular herpes zoster. 29.8% of

patients reported a more severe course of CI against the background of SpA (12 of them did not receive immunosuppressive drugs). Temporary discontinuation of therapy due to the development of CI occurred in 26.4% of patients. At the same time, in 5 patients treated with GC (including in combination with MT, n=3), the development of furunculosis was the reason for changing the treatment regimen. In one patient, MT therapy was discontinued due to the frequent development of purulent tonsillitis. Exacerbation of SpA after CI was diagnosed in 84 patients (70 of them received immunosuppressive therapy).

Conclusion: The data obtained indicate the importance of the problem of CI in SpA. Further studies are needed on large samples of patients in order to find significant risk factors for CI, study their relationship with clinical characteristics and influence on the course of SpA.

Disclosure of Interests: None declared.

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POS1153 EFFECTIVENESS OF SCREENING IN PATIENTS WITH RHEUMATIC DISEASE ON BIOLOGICAL THERAPY AND RISK OF ACTIVE TUBERCULOSIS

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Background: Treatment with biologic therapy has been associated with a high risk of reactivation of latent tuberculosis (TB). Preventive strategies for tuberculosis remain a crucial step before initiating biologics in rheumatic disease. Treatment with biological therapy has been associated with high risk of reactivation of latent tuberculosis (TB). Prevention strategies remain a crucial step before initiating biologics.

Objectives: We aimed to assess the effectiveness of TB screening before the initiation of biologics and the risk of occurrence of active TB among patients with rheumatic diseases on biologic therapies.

The study aimed to access the effectiveness of TB screening recommendations before the initiation of biological therapy and identify the incidence of active TB among these patients.

Methods: We performed a hospital-based retrospective cohort study among rheumatic disease patients on biological therapy in two centers in Jeddah between January 2005 to December 2019. Medical files were retrospectively reviewed for demographics data, baseline screening for TB, use of prophylaxis, information on DMARDs and biological therapies, and outcomes results were collected.

Results: A total of 365 patients were included over a period of 14 years. Two hundred ninety-two (80%) had Rheumatoid arthritis (RA), 13% psoriatic arthritis (PSA), 9% spondyloarthritis (SPA), 2% SLE, and 4% others. The mean age was 47.54 (±14.2), 311 (85%) were females with a mean duration of disease 8.45 years (± 6.58). Hundred forty-nine (42.3%) were on steroids. Anti TNFs were prescribed in 213 (58.4%) patients, Non Anti-TNFs 124 (36.6%) patients, and Jak inhibitors 18 (5%) patients. TB screening was done to all patients except 3 patients (data missing) before commencing biologics. Forty-four (12.1%) patients had latent TB at baseline and all received chemoprophylaxis with isoniazid before starting biologics. Four patients with active TB were identified (one with Behcet's disease and three with RA). One patient had a reactivation of latent TB and 3 patients developed de novo TB. Three out of four had an infection in the first 6 months of treatment (one on infliximab and two on rituximab) and one case after 1 year of stopping adalimumab. Two cases had pulmonary TB and two others with extrapulmonary TB (pericarditis and brain abscess each). All four patients with active TB were treated with standard anti TB medications. Three had complete resolution of their TB and one died.

Conclusion: Baseline screening has been effectively carried out in our cohort as per recommendations. Physician should be vigilant not only for reactivation of latent TB but occurrence of de novo TB in patients on biological therapy.

REFERENCES:

- [1] Gardam, M. A. *et al.* Anti-tumour necrosis factor agents and tuberculosis risk: mechanisms of action and clinical management. *Lancet. Infect. Dis.* **3**, 148-155, doi:10.1016/s1473-3099(03)00545-0 (2003).
- [2] Winthrop, K. L., Yamashita, S., Beekmann, S. E. & Polgreen, P. M. Mycobacterial and other serious infections in patients receiving anti-tumor necrosis factor and other newly approved biologic therapies: case finding through the Emerging Infections Network. *Clin. Infect. Dis.* **46**, 1738-1740, doi:10.1086/587989 (2008).
- [3] Cantini, F., Niccoli, L. & Goletti, D. Tuberculosis risk in patients treated with non-anti-tumor necrosis factor-α (TNF-α) targeted biologics and recently licensed TNF-α inhibitors: data from clinical trials and national registries. *J. Rheumatol. Suppl.* **91**, 56-64, doi:10.3899/jrheum.140103 (2014).