Results: A full-body CT scan demonstrated the presence of multifocal lymphadenopathy, alveolar infiltrates suggestive of diffuse alveolar haemorrhage, and haemorrhage in both kidneys and the left adrenal gland; anticoagulation was held, despite the INR being within the patient's baseline therapeutic levels. He was admitted with a working diagnosis of CAPS and possible zoster infection. Appropriate immunologic workup was requested. He was prescribed intravenous acyclovir, antibiotics, pulse dose of glucocorticoids, and IVIG. Bronchoscopy with bronchoalveolar lavage revealed the presence of haemosiderin-laden macrophages. The rash regressed, and the patients' condition improved. He was discharged with glucocorticoid tapering regimen, hydroxychloroquine, aspirin and warfarin.

Antibody titers were taken prior to IVIG administration at presentation, and at 4 weeks. High VZV IgG titers found at presentation regressed over four times on follow-up. Furthermore, at 4 weeks the patient had developed IgM antibodies against both VZV and HSV. These findings confirmed a concurrent infection.

Conclusion: This is the first report of coexisting HSV/VZV infection associated with CAPS. A literature review identified a total of 28 patients with coexisting HSV/VZV infection, whereas only one case of CAPS triggered by HSV was identified¹. This case illustrates that concurrent infection can occur in the absence of immunosuppressive therapy in patients with APS, serving as a trigger for hemorrhagic CAPS. Simultaneous treatment with antiviral against herpesviruses, glucocorticoids and IVIG may mitigate the inflammatory cascade associated with CAPS.

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AB0648

REACTIVE ARTHRITIS IN SYPHILIS MIMICKING RHEUMATOID ARTHRITIS: A CASE REPORT

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Background: Reactive arthritis is a form of spondyloarthritis with aseptic joint involvement occurring after a gastrointestinal or urogenital infection. Most commonly associated with *Chlamydia trachomatis*, *Salmonella*, *Shigella*, *Campylobacter*, and *Yersinia*. Syphilis is an infection caused by the spirochete *Treponema pallidum* and is not usually associated with reactive arthritis. Syphilis is a great imitator of other diseases due to its broad presentation including painless chancre, constitutional symptoms, adenopathy, rash, synovitis, neurological and ocular findings.

Objectives: To discuss a patient who presented with symptoms of rheumatoid arthritis (RA) but was later diagnosed with syphilis.

Methods: 31 year old male, former tobacco smoker, referred to Rheumatology for sudden onset joint pains, elevated anti-cyclic citrullinated peptide (anti-CCP), and elevated inflammatory markers. He reported pain in bilateral wrists, fingers, and right elbow for 6 weeks. Associated with 45 minutes of morning stiffness and new onset lower back pain without stiffness. He denied trauma, fever, chills, skin rash, dysuria, or diarrhea. Initiated trial naproxen 500mg twice a day only to have minimal relief. Patient is sexually active with men and was recently diagnosed with oropharyngeal gonorrhea treated with azithromycin 4 months prior. All other STI screening including syphilis, gonorrhea, HIV were negative at that time. Patient is on emtricitabine and tenofovir disoproxil fumarate for HIV pre-exposure prophylaxis. He denied family history of immune mediated conditions. Exam was significant for mild synovitis of both wrists and bilateral 2nd metacarpophalangeal joints. Initial labs revealed weakly positive anti-CCP 21 (normal <20), sedimentation rate 64 (normal ESR 0-15 mm/hr), C-reactive protein 24 (normal CRP 0-10 mg/L), and negative RF, ANA, HLA B27. During a short trial of prednisone taper, there was temporary improvement in symptoms, however synovitis recurred upon completion. Hydroxychloroquine (HCQ) 200mg twice a day was started for possible RA and he was referred to Ophthalmology for baseline retinopathy screening. Incidentally, he developed right sided blurry vision 2 weeks after initiation of HCQ. He was diagnosed with panuveitis of the right eye with inflammation of the optic nerve head and prednisone 40mg daily was initiated for presumed ocular manifestation of RA. However, further workup of panuveitis revealed reactive *Treponema pallidum* antibody and RPR quantity 1:32. Prednisone was immediately discontinued and he was referred to the emergency department for possible neurosyphilis.

Results: Lumbar puncture showed cerebral spinal fluid with 260 red blood cells, 1 white blood cell, 27mg/dL protein, 60mg/dL glucose, non reactive VDRL, reactive pallidum IgG antibody, and negative cultures. Meningitis and encephalitis

panels were negative. Patient completed a 14 day course of IV penicillin G with complete remission of joint pain, visual symptoms, and normalization of anti-CCP, ESR, and CRP.

Conclusion: This case highlights how syphilis may mimic signs and symptoms of RA including symmetrical small joint pain, morning stiffness, elevated inflammatory markers, and positive anti-CCP. Anti-CCP is >96% specific for RA but was a false positive in this patient. There have only been few reported cases noting positive anti-CCP with reactive arthritis. This is a rare case of reactive arthritis secondary to syphilis with resolution of symptoms upon treating the syphilis.

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AB0649

INFECTION PROFILE OF IMMUNE-MODULATORY DRUGS USED IN AUTOIMMUNE DISEASES: ANALYSIS OF SUMMARY OF PRODUCT CHARACTERISTIC DATA

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Background: The number of immune-modulatory drugs used to treat immune-mediated inflammatory diseases (IMiDs) has exponentially increased in recent decades. While effective in controlling disease, serious infection remains a concern.

Accurate information on immune-modulatory drugs, including infections, is required to guide prescribing decisions. The "summary of product characteristics" (SmPC) by the European Medicines Agency (EMA) provides a useful repository of information on adverse events e.g. infections, from clinical trials and post-marketing pharmacovigilance (1).

To date, no comparison has been undertaken on reported infection frequencies across SmPCs for immune-modulators.

Objectives: To compare infection frequency, site and type across the most commonly-prescribed immune-modulatory drugs used to treat IMiDs, using information provided by SmPCs.

Methods: A drug was included if licensed in Europe for treatment of one of the following: rheumatoid arthritis, axial spondyloarthritis, connective tissue disease, autoimmune vasculitis, autoinflammatory syndromes, inflammatory bowel disease (Crohn's and ulcerative colitis), psoriasis, multiple sclerosis and other rarer conditions.

The Electronic Medicines Compendium (EMC) was searched for commonly prescribed immune-modulatory drugs used for the above indications. SmPC documents were manually searched for information on infection frequency, extracted from sections 4.4 and 4.8. Infection frequency was recorded as per convention in the SmPC: very common ($\geq 1/10$); common ($\geq 1/100$ to $< 1/10$); uncommon ($\geq 1/1,000$ to $< 1/100$); rare ($\geq 1/10,000$ to $< 1/1,000$); very rare ($< 1/10,000$) (1), for each drug. Information was further extracted on infection site (e.g. respiratory, skin etc), type (e.g. bacterial, viral etc) and individual pathogenic organisms.

25% of included SmPCs were screened and extracted by a second reviewer. Disagreements were resolved with input from a third reviewer.

Results: In total, 39 drugs were included, used across 20 indications: nine conventional synthetic disease-modifying anti-rheumatic drugs (csDMARDs), six targeted synthetic DMARDs (tsDMARDs; four Janus kinase [JAK] inhibitors, two sphingosine 1-phosphate receptor modulators) and 24 biologic DMARDs (17 cytokine-targeted; seven cell-targeted).

Twelve sites of infection were recorded. Minimal or no site information was available for most csDMARDs and siponimod, certolizumab pegol and rituximab. The most common sites of infection are listed by drug group in Figure 1. Upper respiratory tract was the most common site, especially with bDMARDs. Lower respiratory, ear/nose/throat (including sinusitis) and urinary tract infections were moderately common, with clustering within drug groups. No drugs reported risk of cardiac infections; the eye, musculoskeletal, neurological, oral and reproductive sites were the least commonly-reported sites of infection.

Infection data for 27 distinct pathogens were recorded, the majority viruses, especially with bDMARD use. Herpes simplex and zoster were the most frequently

listed (mainly with bDMARDs and tsDMARDs), followed by influenza. Common non-viral causes of infection were candida and tinea species. Variable or absent reporting was noted for opportunistic infections (e.g. tuberculosis and fungi) and certain high-prevalence viruses e.g. Epstein-Barr.

Conclusion: The SmPC literature reports differences in infection risk, by site and pathogen, between immune-modulatory drugs. The findings can be used to visualise differences and aid treatment decisions. However, some of the patterns we have shown lack face-validity to clinicians familiar with real-world safety data. The data fail to capture risk of rare infections, are likely skewed by trial selection criteria, varying number of trials per drug and quirks of individual study-reporting methodologies. The findings highlight the need for robust post-marketing pharmacovigilance studies.

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Drug & target		ENT	GI	LRTI	SKIN/SOFT TISSUE	URTI	UTI
Conventional synthetic drugs	Cladribine						
	Mycophenolate mofetil						
	Teriflunomide						
Targeted synthetic drugs	Janus kinase						
	Baricitinib						
	Filgotinib						
	Tofacitinib						
	Upadacitinib						
Biologic drugs	Sphingosine 1-phosphate receptor						
	Fingolimod						
	TNF α						
	Adalimumab						
	Etanercept						
	Golimumab						
	Infliximab						
	IL-6						
	Sarilumab						
	Tocilizumab						
	IL-17						
	Ixekizumab						
	Secukinumab						
	IL-12/23						
	Ustekinumab						
	IL-23						
	Guselkumab						
	Complement C5						
	Ecilizumab						
	Ravulizumab						
Cell-targeted	Other cytokine/enzyme target						
	Anakinra						
	Canakinumab						
	Mitoxantrone						
	Abatacept						
	Alemtuzumab						
	Belimumab						
	Natalizumab						
	Ocrelizumab						
	Rituximab						
	Vedolizumab						

Figure 1: Summary of common sites of infection for immune-modulatory drugs.

Key: Very common (red dot); Common (orange dot); Uncommon (yellow dot); Rare (green dot); Blank-no information available

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AB0650

SCREENING TESTS FOR LATENT TUBERCULOSIS OF CANDIDATES TO BIOLOGIC THERAPY: DATA FROM THE TUNISIAN BINAR REGISTRY

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Rheumatology, Mahdia, Tunisia; ⁹Fattouma Bourguiba Hospital, Department of Rheumatology, Monastir, Tunisia; ¹⁰Hedi Chaker Hospital, Department of Rheumatology, Sfax, Tunisia

Background: The screening and treatment of latent tuberculosis infection (LTBI) is required before starting biologic therapy. Tuberculin skin test (TST) and interferon γ gamma release assay (IGRA) are the two commonly used tests.

Objectives: The aim of our study was to analyze data from the Biological National Registry BINAR between 2016 and 2020 in order to compare the diagnostic value of TST and IGRA tests.

Methods: We collected data of patients diagnosed with LTBI (having had a TST and/or IGRA before receiving any biotherapy) from the BINAR registry (a National Tunisian registry of patients with inflammatory rheumatic diseases under biologic therapy since less than two years from the inclusion date).

Results: From a total of 298 patients included in our study, 199 patients (66.8%) were screened by TST and 159 patients were screened (53.4%) by IGRA.

Thirty-four patients (11.4%) had a positive TST and 27 patients (9.1%) had a positive IGRA test.

Three patients having negative TST and two having negative IGRA developed tuberculosis.

There was no significant difference in our study between these two tests for LTBI diagnosis. The reactivation of tuberculosis can occur even when LTBI screening is negative using TST and IGRA tests.

Conclusion: Our results show that the predictive diagnostic value for these two tests is the same. It would be more interesting to practice one of those tests prior to biotherapy.

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COVID-19

AB0651

CASE-REPORT: ORGANIZING PNEUMONIA IN A PREGNANT WOMAN WITH RHEUMATOID ARTHRITIS DURING COVID-19 PANDEMIC

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Conclusion: Case-report: Organizing pneumonia in a pregnant woman with rheumatoid arthritis during Covid-19 pandemic

CORNILLIE Alexia, GRIVEGNEE Camille, CHU Charleroi Marie-Curie

Introduction

Rheumatoid arthritis (RA) is a systemic inflammatory disease characterized by destructive polyarthritis and extra-articular organ involvement. Lungs are one of the most commonly affected organ in RA, and the lung involvement in RA results in a various clinical features including interstitial lung disease (ILD) and organizing pneumonia (OP).

OP is a histologic term characterized by the presence of buds of granulation tissue in bronchioles and alveoli. OP can be either idiopathic (cryptogenic organizing pneumonia) or secondary to underlying disease such as infection, drugs or connective tissue disease including RA.

Lung biopsy is usually recommended for the diagnosis, but the following criteria fulfilled by patients can lead to the diagnosis: (1) specific radiological manifestations (nonsegmental randomized consolidation with/without ground glass opacities in chest CT), (2) no causative infectious agent, (3) no response to antibiotics and (4) good response to corticosteroid therapy.

We describe here the case of organized pneumonia discovered in a pregnant woman with known rheumatoid arthritis during COVID-19 pandemic.

Case description

A 39-year old moroccan woman, gravida 4, para 1, was admitted during COVID-19 pandemic at 30 weeks' gestation to maternity hospital with a 1-week history of cough, dyspnea and fever. Her medical history included rheumatoid arthritis and gestational diabetes. She was treated with 5mg of prednisolone daily for her RA. Blood sample showed white blood cell count and C reactive protein at a level of 6860/mm³ and 42mg/L respectively. Chest CT performed at her admission revealed diffuse irregular nodular condensations associated with ground glass infiltrates and a right lower lobe parenchymal condensation with airbronchogram in favor of superinfection. Given circumstances, she was tested twice for SARS-Cov-2 48 hours apart by PCR on nasopharyngeal sample and results came back negative. She was treated empirically with ceftriaxone and azithromycin during the first week and described an improvement in her clinical condition but symptoms reappeared 4 days after stopping treatment. During the 2 following months, until the delivery, the patient remained subpyretic with a nonproductive cough and moderate dyspnea. 5 days after the delivery, due