### 14. PREGNANCY IN A PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOUS(SLE) AND HIV INFECTION

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**Introduction:** We present the case of a 37 year old woman of African origin who developed systemic lupus erythematosus (SLE) on a background of well controlled human immunodeficiency virus (HIV) infection who conceived two months after the diagnosis of SLE was made.

**Case description:** The patient was diagnosed with HIV during her first pregnancy in Spain in 2006. She is currently managed by the HIV team with Raltegravir and Truvada. Her viral load has been undetectable since she moved to the UK in 2016. She had a diagnosis of ANA positive seronegative arthritis, made in Spain. Treatment initiated in 2015 was Methylprednisolone 4mg, Naproxen 500mg od, Hydroxychloroquine 200mg once a day. In November 2016 she was admitted with a flare of severe inflammatory polyarthritis affecting hands wrists, shoulders, knees and ankles and significantly restricting her mobility. She also developed new, non-specific, papular eruption over the posterior aspect of her thighs. A biopsy was nonspecific with no features of SLE and immunofluorescence was negative. She also experienced chest pain on lying flat, with no rub or evidence of heart failure on clinical examination. Chest x-ray on admission demonstrated cardiomegaly. Her ECG revealed first degree heart block. An echo identified a mildly reduced LVEF (50%), a bright, thick myocardium with no effusion and regions of moderate to severe hypokinesia in left ventricle. Cardiology input was sought and Ramipril was commenced, and outpatient follow up including cardiac MRI and CT angiogram was arranged. Serology showed positive antinuclear antibodies (1/400, later were $>$1/1600), crithidia positive dsDNA at a level of 126, negative ENA, borderline low normal C3 and C4 (subsequently low). Her antiphospholipd screen was negative at presentation and when subsequently repeated 12 weeks later for lupus anticoagulant, anticardiolipin IgG & IgM and B2 Glycoprotien G & M. She had a microcytic anaemia (known B thalassaemia trait), lymphopenia, and normal liver and renal function. A diagnosis of SLE was made 10 years after the diagnosis of HIV and while HIV was well controlled. She was commenced on 20mg prednisolone daily and methotrexate was initiated with co-trimoxazole prophylaxis, as advised by the HIV specialists. She stopped methotrexate of her own accord after 2 weeks of treatment. She conceived one month later, against rheumatology advice. Her ramipril, naproxen and amitriptyline were stopped. She chose to continue pregnancy, after the risks of conceiving with active lupus were discussed. These include an increased risk of preeclampsia, foetal growth restriction and preterm delivery. She previously had two uneventful pregnancies following her HIV diagnosis. There was no history miscarriages, small or premature babies. She had two previous cesarean sections due to her HIV diagnosis in 2006 and 2010. Both children are HIV negative, healthy and in mainstream education. Disease became more active at the start of pregnancy with mouth ulcers, arthritis and alopecia. Serologically she had a rising dsDNA and falling complements, despite hyroxychloroquine and oral prednisolone at a dose of 10mg. Steroids were increased and azathioprine was commenced following liaison with the HIV team, and a normal TPMT, this was increased up to a dose of 150mg. The establishment of a combined clinic, during the second half of her pregnancy has enabled joint management with the obstetricians and rheumatologist. Her disease has improved with a decline in her dsDNA levels and rise in complements. Her arthritis and mouth ulcers have resolved. She feels better, and her blood pressure and urine analysis have been stable, with the exception of a urinary tract infection. Her chest pain has resolved with the exception of pregnancy related GORD, her subsequent echocardiograms during pregnancy have demonstrated a stable ejection fraction, with no acute myocarditis. She remains under cardiology care. The outpatient MRI and CT angiogram have been postponed, until after pregnancy. She has also continued under the care of the HIV physicians, who are happy with her progress. She is currently 31 weeks gestation. No anomalies have been identified on her mid-trimester scan, and subsequent growth scans have been normal with estimated foetal weight on the fiftieth centile An elective cesarean and steralisation have been arranged for 11th September 2017 when she will be 39 + 0/40.

**Discussion:** SLE is rarely reported in association with HIV infection. Carugati et al identified fifty-five cases in the literature between 1981 and 2012. In a French Nationwide HIV cohort study the prevalence of SLE was low (16.3/100,000) and seemed lower than the 2010 prevalence of lupus observed in the French general population (47.0/100,000). Another study from Taiwan found an incidence of 17.7/100,000 person-years for SLE among patients with HIV with a high standardised incidence rate (SIR) 2.59. In the French and in other reports the patients had received antiretroviral therapy and had good immuno-virological control at the time of SLE diagnosis. This is in concordance with our case. It has been suggested that resurgence of autoimmune diseases including SLE could occur following highly active anti-retroviral therapy (HAART) when CD 4 levels rise and immune competence is restored. This case increased in complexity when this lady conceived when disease was still active and on potentially terotogenic medications. This case is the first report to our knowledge concerning a pregnancy in a patient with both SLE and HIV.

**Key learning points:** The importance of pre-pregnancy counselling to emphasise the importance of postponing pregnancy until disease has been stable for a minimum of six months and ensuring that patients are on compatible medication prior to conception Appropriately managing disease during pregnancy to ensure the best outcomes for mother and child, this can be achieved through multidisciplinary teamwork This case complements the recommendations made in the NICE endorsed BSR BHPR guidelines have been published on prescribing drugs in pregnancy, in addition to those that are due to be published on the management of SLE It is important to be aware of the possible emergence of autoimmune disease such as SLE in HIV patients when immune competence is restored. Liaising with colleagues due to the potential complexity of immunosuppression in patients on anti-retroviral therapy.