

Objectives: To obtain reliable information about the real-world clinical practice in the area of the management of patients with rheumatoid arthritis.

Methods: The project of All-Russian Register of patients with Rheumatoid Arthritis (ARRRA) started in March, 2012. Due to large number of regions (85) in Russian Federation, and long distances between them, the register was created as internet-based database. Patient population included: patients with RA according to classification criteria (ACR/EULAR 2010 and/or ACR 1987), patients with early RA (including probable RA), adult patients with juvenile arthritis. ARRA database contains the following core information: demographics, classification criteria, comorbidities, RF/ACPA status, joint counts, Indices of activity: DAS28, SDAI, CDAI, PROs: VAS, HAQ, RAPID3, EQ 5D, anti-rheumatic and concomitant medications, serious adverse events, non-pharmacological treatments, orthopedic surgery, employment status.

Results: 4685 patients included at Nov 2014 from 16 main rheumatology centers, representing 71 regions of Russia. 3670 patients had definite diagnosis of RA (after exclusion of juvenile arthritis and probable RA): 82.6% females, 17.4% males, 74.3% RF positive. Comorbid conditions were listed in 52% of pts, the main conditions were arterial hypertension (39.9%) and IHD (12.5%). At Nov 2014, 89.1% pts received synthetic DMARDs, including 76.1% on methotrexate (MTX), alone or in combination, these proportions was relatively stable since Dec 2012. The proportion of patients being on biological DMARDs increased from 11.4% in Dec 2012 to 21% in Nov 2014. The proportions of patients used oral steroids and NSAIDs decreased from 67.8% and 80.1% to 57.9% and 63.2% respectively. Mean DAS28 score changed during this period from 5.04±1.42 to 3.98±1.31.

Conclusions: The increased use of methotrexate and biologic DMARDs corresponds to the decrease of disease activity, oral steroids and NSAIDs use in wide population of patients with RA in Russian Federation.

Disclosure of Interest: None declared

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AB1116 ASSOCIATED FACTORS OF EROSIVE ARTHRITIS IN RHEUMATOID ARTHRITIS AND OTHER CONNECTIVE TISSUE DISEASES: A RETROSPECTIVE STUDY FROM SOUTHERN CHINESE POPULATION

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Background: Erosive arthritis (EA) was common in Rheumatoid Arthritis (RA) and connective tissue diseases (CTDs), which indicated poor outcomes. It would be clinically useful to identify a subset of patients at an early stage of the disease process who have a high risk of developing EA. Most of the previous studies focused on EA in RA, less about other CTDs. T

Objectives: To investigate the putative predictors of EA in patients with RA and other CTDs, thus improve appropriate medical intervention and a better prognosis.

Methods: A retrospective review of the medical records between 2010 and 2013 was performed at the First Affiliated Hospital of Sun Yat-Sen University. Patients' baseline information including demographic variables, clinical features, radiological characters and serological parameters was collected.

Results: One thousand and sixty seven patients [338 with RA, 408 with systemic lupus erythematosus (SLE), 69 with primary Sjögren's syndrome (pSS), 33 with systemic sclerosis (SSc), 35 with adult onset Still's Disease (AOSD), 94 with vasculitis, 59 with undifferentiated connective tissue disease (UCTD), 8 with multiple connective tissue disease (MCTD), 19 with inflammatory myopathy, 2 with polymyalgia rheumatica and 2 with erythema nodosum] were selected. EA was noted in 60.4% (204/338) of patients with RA, 1.5% (6/408) of patients with SLE, 5.8% (4/69) of patients with pSS, and 9.1% (3/33) of patients with UA. The multivariate logistic regression analysis indicated that rheumatoid nodules (OR=3.04, 95%CI 1.26–7.34, $P=0.01$), anemia (OR=3.31, 95%CI 1.21–9.02, $P=0.02$), and positive anti-cyclic citrullinated peptide antibodies (ACPA) (OR=6.49, 95%CI 3.34–12.63, $P<0.01$) were strongly associated factors for the occurrence of EA in RA patients. When compared with patients without EA, high level and prominently higher positive rate of ACPA was found in SLE and pSS. Statistically significant association was found between ACPA ($P=0.03$) as well as IgM-rheumatoid factors (RF) positivity ($P=0.01$) and the presence of EA in SSc.

Conclusions: EA occurred early in RA and indicated poor outcomes. Anemia, rheumatoid nodules and ACPA were associated with EA development in RA. SLE overlapping RA, pSS progressing to RA-associated secondary disease and UA evolving to RA also could induce EA. Anti-CCP antibodies also could be detected in these diseases and was closely associated with EA. This may be a useful biomarker in identifying a subset of CTDs patients with high risk for development of EA.

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AB1117 24 HOUR CRYSTAL MICROSCOPY IMPROVES DIAGNOSIS IN CASES OF CPPD

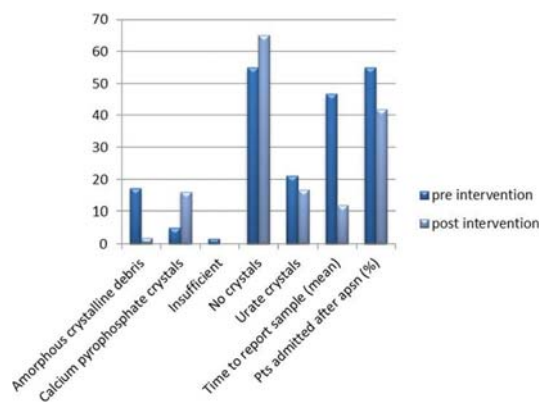
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Background: Acute monoarthritis presents a diagnostic challenge on call and generates many inpatient Rheumatology referrals. Patients may undergo unnecessary intravenous antibiotics or arthroscopy for fear of missing septic arthritis. Calcium pyrophosphate deposition disease (CPPD) is the most challenging crystal arthropathy to prove on synovial fluid analysis, due to the relative fragility of crystals and lack of persistent at microscopy. We present an example of service change which altered diagnostic rates for crystal arthropathies, and would streamline care.

Objectives: To assess the effect of widened access to crystal microscopy in the management of acute monoarthritis in a district general hospital.

Methods: Regional histopathology and local microbiology databases were reviewed for synovial aspirates between January 2013 and June 2014. This spanned a change from histopathology to microbiology as primary laboratory for analysis in December 2013. Microbiology were trained in crystal microscopy, and the service was extended from 9am-5pm to 24 hour. Results were cross-referenced with Cyberlab biochemical result system for further details. Timings of lab samples were recorded.

Results: 180 synovial fluid samples were received during January to December 2013, and 155 during December 2013 to June 2014 in our hospital. Graph 1 shows the change in results across the service change. Most notably the rates of CPPD rose substantially and amorphous crystalline debris fell. A&E admission rates also fell. All samples pre intervention were analysed within working hours. 24 hour microscopy service saw 59% of samples analysed out of hours (5pm-9am or weekends). Wait times for sample analysis fell from 46 hours to 11.8 with the change in service.



Conclusions: Service development has led to demonstrable changes in diagnoses (increased rates CPPD, reduced amorphous crystalline debris, but maintained rates of MSU and negative results). Accurate early diagnosis reduces admissions and would reduce patient exposure to unnecessary procedures.

References:

- [1] Zhang et al. European League Against Rheumatism recommendations for calcium pyrophosphate deposition. Part I: terminology and diagnosis. *Ann Rheum Dis* 2011 Apr;70(4):563-70. doi: 10.1136/ard.2010.139105. Epub 2011 Jan 7.
- [2] Tausche et al. A 3-day delay in synovial fluid crystal identification did not hinder the reliable detection of monosodium urate and calcium pyrophosphate crystals. *J Clin Rheumatol* 2013 Aug;19(5):241-5. doi: 10.1097/RHU.0b013e31829cde53.

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AB1118 VALIDITY AND RELIABILITY OF MEDICATION ADHERENCE SCALE IN FMF (ADULT VERSION)

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Background: The optimal level of adherence necessary to achieve acceptable disease and quality-of-life outcomes for patients is not known. In order to identify these optimal levels, we need reliable and valid measures of adherence. Medication Adherence Scale in FMF (MASIF) is an instrument designed to measure adherence to treatment in children with FMF. We have developed this scale for children with FMF and found valid and reliable (1).