Among 9 patients who were on treatment with prednisone at the start of the last IL-1 inhibitor, the prednisone median dose was 12.5 mg/day [10.0-18.8] while at the last follow-up visit it was 5.0 mg/day [0-7.5] ($p=0.02$). The retention rate of IL-1 inhibitors was 73.4% [SE 9.4] at 1 year and 63.6% [SE 10.4] at 2 years (Figure 1a). There was no significant difference between the retention rate of anakinra (at 1 year: 67.0% [12.2]; at 2 years: 59.6% [12.9]) and canakinumab (at 1 year: 85.7% [13.2]; at 2 years 71.4% [17.1]) (log-rank test: $p=0.41$) (Figure 1b).

Figure 1. a) Retention rate of IL-1 inhibitors (24 courses); b) Retention rate of canakinumab (8 courses) and anakinra (16 courses).

Conclusion: In this multicentric cohort of patients affected by Schnitzler's syndrome, the treatment with IL-1 inhibitors as 1st, 2nd or 3rd line biological treatment permitted a good disease control and corticosteroid reduction in patients who did not respond to csDMARDs and/or to prior other biological DMARDs. The optimal dosage of these drugs needs to be tailored for every patient.

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OP0094

PULMONARY ARTERIAL HYPERTENSION IN ADULT-ONSET STILL'S DISEASE: A CASE SERIES OF 13 PATIENTS

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Background: Pulmonary Arterial Hypertension (PAH) is a rare but potentially fatal complication of Adult-Onset Still's Disease (AOSD) (1). To date, only isolated observations have been published.

Objectives: To establish the largest case series of AOSD patients with PAH, and to describe their clinical profile, evolution and response to treatments.

Methods: Cases were retrospectively identified from the French PAH network database and from an online call of the "Club Rhumatismes et Inflammation" (<http://www.cri-net.com>). To be included, all patients had to fulfil the Yamaguchi or Fautrel's criteria for AOSD and PAH had to be confirmed by right heart catheterization. The data were collected using a standardized questionnaire.

Results: Thirteen patients were identified. All were female, the mean age at PAH diagnosis was 32±12 years, 2 (15%) patients were Caucasian, 6 (46%) from

Sub-Saharan Africa, 1 (8%) from Asia and 4 (31%) from West Indies. Only 2 (15%) patients were smokers. All patients had a systemic onset of AOSD, 12 had a polycyclic and 1 a chronic articular evolution, and the mean delay between AOSD and PAH diagnosis was 2.9 (range 1.7-5.4) years. At PAH diagnosis, patients were receiving the following treatments: 13 (100%) corticosteroids (median dose 12 mg [interquartile range (IQR) 9-18]), 3 (23%) methotrexate, 8 (61%) interleukin (IL)-1 inhibitors (exposure median duration 6.7 months [IQR 3.6-8.5]), none IL-6 inhibitors, 2 (15%) TNF inhibitors. Six (46%) patients developed PAH during an AOSD flare. PAH was severe at diagnosis: 2 (15%), 7 (54%) and 4 (31%) patients were in NYHA functional class II, III and IV, respectively, with a median 6-minute walk distance of 289 m [IQR 0-448], a mean pulmonary arterial pressure of 41±12 mmHg, a mean pulmonary arterial occlusion pressure of 6±3 mmHg, a mean cardiac output of 3.9±1.2 L/min, a mean cardiac index of 2.5±0.9 L/min/m² and a median pulmonary vascular resistance of 7 Wood Units [IQR 6-11]. The treatment prescribed after PAH diagnosis is detailed in the table. The median follow-up was 34 months [IQR 7-42]. Five patients (38.5%) died. Figure 1 shows the overall survival. The haemodynamic response to PAH treatment seemed to be dissociated from the prognosis since several patients have died while their haemodynamic had improved or almost normalised.

Conclusion: PAH is a rare but potentially severe complication of AOSD, leading to death in 38.5% of our cases series. AOSD remission should be physicians' objective, since PAH seems to occur when the underlying disease is not controlled.

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Table 1. Therapeutic management

Treatment	n (%)
Inotropic therapy	5 (38%)
HTAP treatment	10 (77%)
• 0 Monotherapy	3
• 0 Initial oral dual combination therapy	3
• n Dual combination therapy including intravenous (IV) prostacyclin	1
• u Upfront triple combination therapy including IV prostacyclin	3
High-dose corticosteroids	9 (69%)
Interleukin 1 inhibitors initiation	2 (15%)
Interleukin 6 inhibitors initiation	5 (38%)

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Figure. Overall survival

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OP0095

NON-GONOCOCCAL PYOGENIC ARTHRITIS OF NATIVE JOINTS IN WESTERN AUSTRALIA. A LONGITUDINAL POPULATION-BASED STUDY OF FREQUENCY, RISK FACTORS AND OUTCOME.

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Background: The worldwide incidence of PyA is reportedly rising due to a combination of increased longevity, multi-comorbidity, iatrogenic complications and increasing use of immunomodulating therapies, while there is limited data on longterm outcomes of PyA.

Objectives: To describe the recent incidence, risk factors and long-term outcomes in adults hospitalised with non-gonococcal pyogenic arthritis (PyA) of native joints in Western Australia (WA).

Methods: We extracted population-based longitudinally linked administrative health data for patients 16 years or older with a first diagnostic code of 711.xx (ICD9-CM) and M00.xx (ICD10-AM) in WA in the period 1990-2010. Annual incidence rates (IR), risk factors during 14.5 years lookback and outcomes including standardized mortality rates (SMR) during 10.1 years follow-up are reported.

Results: A total of 2,777 patients (67% male, mean age 49.8 ± 20.5) received a first diagnostic code for PyA. The AIR increased from 4.5 to 11.8 /100,000 over time as did age at onset (45.1 to 55.4 years) and proportion of female patients (23 to 36%). There was no seasonal variation in PyA incidence but a higher rate of predisposing comorbidities in female patients. Knees (33.6%) and hands (22%) were most frequently affected with 28.4 % of positive cultures not due to Gr+ cocci. Mean hospital stay was 8 days, 30-day readmittance and mortality rate was 12.8% and 3.1% respectively. During ten years follow-up serious infections (43%), new diagnosis of osteoarthritis (20%), joint replacement (10.8%), osteomyelitis (6%), and crystal arthropathy (6.3%) were the most common morbidities. SMR were increased across all age and gender categories (Table) but highest in females aged 16-40 (SMR 25.9).

Table 1. Mortality rates (MR) per 1000 person years in patients with pyogenic arthritis compared with age (at death) and gender matched categories from the general population by standardised mortality rate (SMR)

Gender	Age	Deaths	Person years	MR PyA	MR Gen pop *	SMR
Male	16-40	27	4015	6.72	0.892	7.53
	40-59	80	7106	11.25	2.972	3.78
	>60	331	7366	44.93	21.55	2.08
	All	438	18487	23.69	5.820	4.07
Female	16-40	11	1026	10.72	0.41	25.95
	40-59	40	2769	14.44	1.75	8.21
	>60	208	4088	50.88	24.20	2.10
	All	259	7883	32.85	5.50	5.96

* Based on WA death data from Australian Bureau of statistics in 2011

Conclusion: The incidence of PyA has increased significantly between 1990 and 2010 in WA. PyA associates with a 3% in-hospital mortality rate and significant late bone and joint morbidity including osteomyelitis. PyA associated with excess mortality across age and gender categories, most markedly in younger female patients.

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OP0096

EXPOSURE TO DENGUE INFECTION DO NOT RAISE RISK OF RHEUMATOID ARTHRITIS: FINDINGS FROM THE MALAYSIAN EPIDEMIOLOGICAL INVESTIGATION OF RHEUMATOID ARTHRITIS (MEYIRA) CASE-CONTROL STUDY

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Background: Dengue infection is associated with joints pain mimicking disease onset symptom of rheumatoid arthritis (RA). However, there is lack of epidemiological studies on exposure to dengue infection and risk of future RA.

Objectives: We investigated the relationship between exposure to dengue infection and risk of developing different subsets of RA, defined by the presence

of anti-citrullinated peptide antibody (ACPA) in the multi-ethnic Malaysian population.

Methods: Serum samples from 1,235 RA cases (i.e. 516 Malay, 254 Chinese, 405 Indians and 60 others/mixed-ethnicity) and 1,624 epidemiological matched population-based controls (i.e. 1,023 Malay, 208 Chinese, 297 Indians and 96 others/mixed-ethnicity) were assayed for presence of dengue IgG antibody using World Health Organization recommended ELISA kits. Positive results of dengue IgG antibodies indicates previous exposure to dengue infection(s). We performed chi-square and Mann-Whitney U analysis to determine the association of ever-exposed dengue infection with ACPA-positive/ACPA-negative RA and to investigate the antibody frequency and levels among the studied populations.

Results: We observed high occurrence of dengue IgG antibody in the overall RA cases (79.7%) and matched controls (77.3%), with no significant differences detected between the ACPA subsets of RA. Ethnicity stratification analysis revealed a decrease risk of developing ACPA-positive RA in the Indian patients with positive dengue IgG antibody (OR=0.59, 95% CI=0.37-0.94, p=0.03), and in particular patients with elevated level of dengue IgG antibody (OR=0.44, 95% CI=0.25-0.78, p<0.05). On the other hand, the significant decrease mean levels of dengue IgG antibody were observed in the ACPA-positive RA subset for all three major ethnic groups (i.e. Malay, p<0.0001, Chinese, p<0.01 and Indian<0.05) (Figure 1). No association was observed between presence of dengue IgG antibody and ACPA-negative RA subset.

Figure 1. Comparison of mean dengue IgG antibody level between ever-exposed dengue infection RA cases, stratified by ACPA status. Comparison of median dengue IgG antibody level between the ever-exposed dengue infection ACPA-positive RA and normal controls in the four ethnic groups. The red line indicates the mean level of dengue IgG antibody level

Conclusion: Our findings demonstrated that exposure to dengue infection do not increase the risk of developing future RA in the multi-ethnic Malaysian population. The inverse associations observed in the Indian ethnic group are in line with the other studies investigating exposure to viral infection and risk of RA.

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OP0097

LISTERIA MONOCYTOGENES. DESCRIPTION AND ANALYSIS OF CASES IN AN IMMUNODEPRESSED POPULATION BY RHEUMATIC DISEASES

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Background: *Listeria monocytogenes* is a gram-positive bacteria that cause the invasive disease listeriosis. Human clinical syndromes are infrequent, mostly appearing in immunosuppressed individuals, newborns, the elderly, pregnant women, and occasionally healthy patients.