nephelometric assay. The cut-off value of serum IgG4 was 201 mg/dl. We compared the levels of serum IgG4 among patients with different types of malignancy.

Results: (1) Among the 90 patients, 18 patients were gallbladder carcinoma, 6 patients were lung carcinoma, 34 patients were liver carcinoma, 6 patients were gastrointestinal carcinoma, and 19 patients were pancreatic carcinoma. 68 (75.56%) patients were male and mean age was 52.8 ± 15.5 yrs. The mean value of serum IgG4 was 146.7 ± 147.6 mg/dl, and 21 (23.3%) of patients have elevated serum IgG4. (2) Serum IgG4 level in gastrointestinal carcinoma is the highest (237.8 ± 50.92 mg/dl), but the sample is too small. Serum IgG4 level in liver carcinoma was higher than other types of malignancy (180.5 ± 32.04 mg/dl. vs gallbladder carcinoma 114.4 ± 15.01 mg/dl, $p < 0.01$. vs pancreatic carcinoma 91.63 ± 19.89 mg/dl, $p < 0.01$. vs lung carcinoma 67.47 ± 11.75 mg/dl, $P < 0.01$).

Conclusion: Elevated serum IgG4 level is common in patients with malignancies, while patients with liver carcinoma have significant higher serum IgG4 level than those with gallbladder carcinoma, pancreatic carcinoma and lung carcinoma. This suggests that IgG4 may have different role in different types of tumor.

Figure 1

Disclosure of Interests: None declared

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Validation of outcome measures and biomarkers

AB1303 FUNCTIONAL AND PROFESSIONAL OUTCOMES IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is the most common chronic inflammatory rheumatism in adults. It affects the synovial membrane, evolves by outbreaks and can lead to joint destruction. It generates a physical disability that causes an impairment of quality of life and professional activity.

Objectives: To study the socio-demographic, clinical and professional characteristics of patients and to assess the impact of RA on quality of life and professional activity.

Methods: We conducted a retrospective, descriptive study on patients' files, followed at the rheumatology department of LA RABTA university hospital, for RA over a period of ten years. The target population was patients having a professional activity at the time of the discovery of the disease. We assessed disease activity by the Disease Activity Score DAS28-CRP, work impact by the "Work Productivity and Activity Impairment" questionnaire (WPAI:RA) and quality of life by the Health Assessment Questionnaire (HAQ). The data was entered into an excel table and analyzed using SPSS software version 19.0. In all statistical tests, the significance level was set at 0.05.

Results: We collected 25 cases of RA. Mean age was 50.36 ± 8.28 years with a sex ratio of 1.08. The mean age of RA was 9.8 years and the mean age of onset was 40.56 ± 9.84 years. The study population occupied a manual job in 84% of cases. The average professional seniority was 21.76 ± 12.83 years. Patients reported having stopped work because of their illness in 44% of cases. The mean of DAS28-CRP was 4.32 ± 1.57 , 72% of the study population had moderate to severe RA activity. The mean HAQ was 1.38 ± 0.69 with 76% of cases suffering from "moderate to severe" or "severe to very severe disability". The evaluation of the work productivity and activity impairment by the WPAI:RA questionnaire objectified an absenteeism of $30.7 \pm 9.4\%$, a presenteeism of $46.7 \pm 26.4\%$, a work productivity loss of $60.4 \pm 33.8\%$ and an activity impairment of $57.2 \pm 25.4\%$. A positive and statistically significant correlation was noted between the results of WPAI and HAQ, between the results of WPAI (except absenteeism) and DAS28CRP and between HAQ and DAS28-CRP.

Conclusion: RA causes a significant functional disability that affects the professional activity and quality of life of patients. Early diagnosis and treatment of this disease can slow the progression of the disease. Occupational medicine plays an important role in the early detection and maintenance of employees with RA at work.

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AB1304 THE RHEUMATOID ARTHRITIS FLARE QUESTIONNAIRE (RA-FQ) IS AN EASY TO ADMINISTER PATIENT-REPORTED OUTCOME MEASURE THAT TRACKS WELL WITH THE CLINICAL DISEASE ACTIVITY INDEX (CDAI) OVER TIME IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS (ERA) IN 2 DIFFERENT HEALTH SETTINGS

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Background: RA patients may cancel scheduled visits with their rheumatologist. In clinical practice, a validated patient-reported disease activity measure that tracks well with traditional clinical indices could address an important gap by providing real-time information on RA disease activity when a visit to the rheumatologist is not possible.

Objectives: To assess concordance between the 5-item patient-reported Rheumatoid Arthritis Flare Questionnaire (RA-FQ) (^{1,2}) and the Clinical Disease Activity Index (CDAI) in patients with early RA (ERA) treated in rheumatology clinics in 2 countries with different health systems.

Methods: Data were analyzed from patients enrolled in the Canadian early Arthritis Cohort (CATCH) between Nov 2011 and March 2017 and in the Consortium of early Arthritis Cohorts- USA (CATCH-US) from Dec 2014 to Dec 2018. Both observational studies had a similar design; enrolled patients diagnosed with EIA (< 1 year of persistent symptoms) by a rheumatologist who completed similar regular protocolized clinical assessments, laboratory investigations and PROMs. The RA-FQ, designed to assess worsening of RA Inflammation, is a short composite PROM (total score 0-50) that sums 5 single items (NRS 0-10) querying pain, fatigue, stiffness, function and participation. The present analysis includes patients meeting ACR 1987 or 2010 ACR/EULAR criteria, with RA-FQ and CDAI at baseline and at least 1 other follow up (FU) over 12-months. We compared mean scores of the RA-FQ and CDAI over time and calculated intraclass correlation coefficients (ICC) to assess concordance between measures in the 2 cohorts.

Results: The study included 818 Canadian and 75 American early RA patients. Age, male sex, and disease activity was higher in the Canadian cohort, while post-secondary education was higher in the US cohort (Table1). RA-FQ and CDAI scores tracked closely with one another over time in both cohorts (Canada ICC: 0.76; US ICC: 0.80)

Conclusion: There was high concordance between the RA-FQ and CDAI measures over the 1st year of follow up in 2 early RA samples recruited in 2 countries. The RA-FQ may help patients and clinicians track patient disease activity between clinic visits.

Table: Patient and Disease Characteristics at Study Entry

Mean (SD) or%	CATCH (N=818)	CATCH-US (n=75)	p
Age, years	55 (15)	47 (16)	<0.001
Female,	72%	84%	0.028
Caucasian/White,	80%	76%	0.401
Education (High School or less)	42%	12%	<0.001
Symptom duration (months)	5.5 (2.9)	6.0 (3.3)	0.188
Seropositive (RF or ACPA),%	74%	77%	0.690
CDAI	28.0 (14.0)	14.4 (11.9)	<0.001
RA-FQ	26.7 (13.3)	16.0 (12.4)	<0.001

Figure 1. Mean RA-FQ and CDAI scores over 12-months Follow Up in Canadian and US Early Rheumatoid Arthritis Cohorts.

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AB1305

EVALUATION OF SERUM LEVELS OF ASC FOR THE DIAGNOSIS AND MONITORING OF CRYOPYRIN ASSOCIATED PERIODIC SYNDROMES (CAPS)

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Background: Dominantly gain-of-function mutations in the NLRP3 gene lead to Cryopyrin associated periodic syndromes (CAPS) characterized by constitutive activation of the inflammasome, increased secretion of interleukin (IL)-1beta and IL-18, and systemic inflammation. IL-1beta and active caspase-1 subunits are released in the serum together with the oligomeric particles of the adaptor ASC (apoptosis-associated Speck-like protein with a caspase-recruitment domain) after activation of the inflammasome complex and, as a consequence, patients with CAPS show an increased serum concentration of ASC⁺ particles.

Objectives: Patients suffering from CAPS are characterized by clinical manifestation similar to other autoinflammatory diseases. This phenomenon together with the lack of specific laboratory tests makes difficult the diagnosis of CAPS. In this context the development of a test for the evaluation of serum ASC levels could provide novel biomarkers facilitating early disease diagnosis and able to monitor treatment responses.

Methods: We analysed, with a novel ELISA assay, the levels of ASC particles in serum and plasma of normal subjects, CAPS patients and patients with autoimmune disorders (Multiple Sclerosis (MS), Type 1 Diabetes (T1D) and juvenile idiopathic arthritis), to confirm that ASC presence in the serum is not due to other chronic inflammatory processes characterizing autoimmunity. To evaluate the specificity of this biomarker in CAPS patients and not in individuals suffering from others inflammatory disorders, we also analysed sera from TNF receptor-associated periodic syndrome (TRAPS) patients.

Results: ASC particles were higher in untreated CAPS patients with respect to healthy controls and patients suffering from MS and T1D. This tendency was also evident in patients with arthritis and TRAPS even if the difference was not statistically significant due to the small number of samples. In addition after pharmacological treatment there is a tendency to be confirmed through a reduction of ASC levels in CAPS patients.

Conclusion: These data suggest that ELISA quantitation of ASC protein could represent a novel and additional strategy for the diagnosis and monitoring of CAPS.

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