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#### THU0693 INPATIENT PREVALENCE, EXPENDITURES AND COMORBIDITIES OF TAKAYASU'S ARTERITIS: A PROPENSITY-MATCHED COHORT STUDY

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**Background:** Takayasu's arteritis (TAK) was first described in Japan. Since then, the disease has been extensively studied in Japan and other Asian countries [1]. However, little is known about the characteristics, inpatient burden, expenditures and comorbidities of TAK in the United States (US).

**Objectives:** To investigate the inpatient prevalence, expenditures and comorbidities of patients with TAK in the US.

**Methods:** Patients with TAK were identified within the Nationwide Inpatient Sample (NIS) database of the years 2013-2014 using ICD-9 diagnostic code. NIS is a publicly available inpatient database that contained data of over 7 million hospital stays, which are a 20% stratified sample of over 4,000 non-federal acute care hospitals from more than 40 states of the US. Data on patient characteristics, comorbidities, resource utilization and expenditures was collected. A propensity-matched cohort of patients without TAK was also created from the same database to serve as comparators for the analysis of comorbidities. Inpatient prevalence of TAK was calculated using all admissions in the NIS database as denominator. Odds ratios (OR) comparing the prevalence of comorbidities between cases with TAK and propensity-matched controls without TAK were calculated.

**Results:** A total of 2,840 patients with TAK were identified from the database, corresponding to an inpatient prevalence of 4.6 cases per 100,000 admissions. The 5 main reasons for admission in patients with TAK were as follows; chest pain (17%), acute myocardial infarction (16%), stroke (14%), sepsis (14%) and pneumonia (11%). Compared to the propensity-matched cohort of patients without TAK, patients with TAK were found to have significantly increased odds of stroke, aortic aneurysm, aortic valvulopathy and peripheral vascular disease. TAK was also associated with increased use of some procedures (Table 1). However, the mortality was not significantly different (adjusted OR: 1.44, 95% CI: 0.58 - 3.61, p=0.43). After adjusting for confounders, patients with TAK displayed a mean additional \$11,275 (95% CI, \$4,946 - \$17,603) for total hospital costs (the amount of money invested by each institution in providing patient care) and a mean additional \$45,305 (95% CI, \$23,063 - \$67,546) for total hospitalization charges (the amount of money that each hospital billed for providing its service on each case) when compared to patients without TAK.

**Conclusion:** The inpatient prevalence of TAK was higher than what would be expected from the overall incidence. The mean total hospital costs and total hospitalization charges for patients with TAK were higher than patients without TAK. Analysis of comorbidities found significantly higher odds of several vascular comorbidities compared to a propensity-matched cohort of patients without TAK.

#### REFERENCES:

[1] Onen F, Akkoc N. Epidemiology of Takayasu arteritis. *Presse Med* 2017;46:e197-e203

**Table 1.** Adjusted ORs comparing the prevalence of comorbidities and use of procedures between patients with TAK versus patients without TAK

	Adjusted odds ratio	95% CI	p-value
<b>Comorbidities</b>			
Stroke	4.66	2.10-10.31	<0.01
Aortic aneurysm	40.76	9.13-181.7	<0.01
Peripheral vascular disease	2.01	1.22-3.32	<0.01
Acute myocardial infarction	2.13	0.56-8.13	0.27
Aortic valvulopathy	4.92	2.09-11.55	<0.01
Chronic kidney disease	1.22	0.63-2.63	0.57
<b>Procedures</b>			
Aortic valve replacement	1.39	0.42-4.60	0.59
Peripheral vascular intervention	4.41	1.61-12.10	<0.01
Arteriography	6.82	2.79-16.68	<0.01
MRI use	2.60	0.42-16.28	0.31

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#### THU0694 BRAZILIAN SJÖGREN'S SYNDROME REGISTRY (BRASS): A LARGE BRAZILIAN MULTICENTRIC COHORT OF PRIMARY SJÖGREN'S SYNDROME

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**Background:** Primary Sjögren's syndrome (pSS) is an orphan systemic autoimmune disease with no treatment based on evidence<sup>1</sup>. There is an international effort for multicentric registries for getting information about phenotypes, complication, response of treatment, and biobank consortium.

**Objectives:** To describe the creation of the Brazilian Sjögren's Syndrome Registry (BRASS) and present the preliminary data.

**Methods:** BRASS is supported by Brazilian Society of Rheumatology (SBR) and is including patients from all regions of the country. Recruitment started in 2018 and is due to be completed in 2024. We are including patients with pSS according to AECG 2002 or ACR-EULAR 2016 classification criteria. All patients are being assessed for disease activity (ESSDAI), disease damage (SSDDI), symptoms assessment (ESSPRI), fatigue (FACIT-Fatigue), anxiety and depression (HADS), sleepiness (Epworth Sleepiness Scale), physical activity (IPAQ-SF) and quality of life (EQ-5D). In addition, demographics, immunological tests, unstimulated whole salivary flow (UWSF), salivary gland biopsy (SGB), comorbidities, treatment and complications such as cancer and cardiovascular risk assessment are being collected.

**Results:** There are currently 10 centers across the Brazil and 248 patients were evaluated until now. Most patients were female, white (45%) or mixed (38.3%), with the mean of the disease duration of 8 years. ESSDAI at baseline was 6.62±6.37 and currently is 4.21±5.16 (p<0.05). The mean of the SSDDI was 2.16±1.60 and ESSPRI 8.38 ±6.88. SGB was positive in 81.5% and focus score mean was 1.58 ±1.30. Schirmer test I was positive in 72.6%, van Bijsterveld in 70.9% and UWSF in 84.8%. About classification criteria, 91.9% fulfilled AECG 2002 and 94% ACR/EULAR 2016. Anti-Ro and anti-La were positive in 70.8% and 35.5%, respectively. Forty three percent had positive RF, 88.5% ANA, 6.9% low C3, 10.2% low C4, 34.9% high IgG. Nineteen percent were using prednisone, 40.4% immunosuppressant, 53.6% antimalarial and 17.6% biological therapy. Prevalence of cardiovascular event was 7.5%, hypertension 43.3%, diabetes 13.3%, dyslipidemia 31.5%, smoking 5.8% and cancer 7.5%.

**Conclusion:** ESSDAI has decreased over time and more than half of patients are on hydroxychloroquine, immunosuppressant or biological therapy. Further analysis is needed to understand whether the reduction in ESSDAI reflects the natural course of the disease or greater access to

treatment. BRASS Registry will be important to enhance research and to develop public health planning.

#### REFERENCES:

[1] Valim V et al. Recommendations for the treatment of Sjögren's syndrome. *Rev Bras Reumatol* 55:446–57, 2015.

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#### THU0695 DIFFERENCES OF LIFESTYLE HABITS OF SMOKING, DRINKING ALCOHOL AND CAFFEINATED COFFEE CONSUMPTION BETWEEN RHEUMATOID ARTHRITIS PATIENTS AND HEALTHY CONTROL – TOMORROW STUDY-

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**Background:** Previous reports indicated the strong association between smoking and onset of rheumatoid arthritis (RA), and relation between some of lifestyle habit and disease activity of RA.

**Objectives:** In this study, we compared differences in habits of smoking, alcohol consumption, coffee and Japanese tea intake between RA patients and healthy volunteers (Vo) in the same study population.

**Methods:** This study was conducted based on baseline data from ongoing 10-years prospective cohort project TOMORROW study (UMIN00003876), which includes age and sex matched RA patients (n=208) and Vo (n=205). Data on smoking history and alcohol (Alc), coffee and Japanese tea intake were collected by self-reported questionnaires. Alc intake was categorized into 3 groups by calculating the amount per day using Alc unit (pure Alc 20 mg/Alc unit). We also categorized frequency of Alc intake per week into 3 groups, number of cups of coffee and Japanese tea intake per day into 4 groups each. The data of RA patients included anthropometric, blood test data, disease activity score 28-ESR (DAS28-ESR), together with baseline characteristics. Using logistic multivariate regression lifestyle habits were compared between RA and Vo.

**Results:** We analyzed 191 Vo and 198 RA with complete data about lifestyle habits. Demographic data and lifestyle habits of RA and Vo were shown in the Table 1 and 2. In RA patients, the average disease activity score 28-ESR (DAS28-ESR) was 3.49±1.34 and disease duration was 13.9±11.8 years. In multivariate analysis, smoking history (OR 5.03, 95% CI 1.42-17.9; p=0.04), 2 - 6 unit of Alc intake per day (OR 0.20, 95% CI 0.04-0.96; p=0.04) and 0 - 1 cup of caffeinated coffee intake per day (OR 0.26, 95% CI 0.07-0.91; p=0.04) were significantly different between RA and Vo. However, there were no significant difference in Alc frequency, decaffeinated coffee and Japanese tea intake.

**Conclusion:** As shown in previous reports, the smoking history was significantly higher in RA patients with an odds ratio of 5.03. And moderate intake of Alc and caffeinated coffee seems to be low in RA patients.

**Table 1.** Demographic data of rheumatoid arthritis patients (RA) and healthy volunteer (Vo).

	RA (N=198)	Vo (N=191)	p.value*
Age	58.4±12.6	57.0±13.2	0.28
Sex female	167 (84.3)	158 (82.7)	0.68
BMI	22.7±3.64	22.6±3.20	0.72
Disease duration (year)	13.9±11.8		
ACPA positivity	166 (83.8)		
RF positivity	136 (68.7)		
DAS28-ESR	3.49±1.34		
mHAQ	0.47±0.59		
Methotrexate dose (mg/week)	6.54±3.76		
bDMARDs use	104 (54.5)		

Values are mean±SD, or n (%). \*Student-T-test and Fisher's exact test for RA and Vo.

BMI, body mass index; Alc, alcohol; mHAQ, modified Health Assessment Questionnaire; bDMARDs, biologic disease modified anti-rheumatic-drugs.

**Table 2.** Lifestyle habits of rheumatoid arthritis patients (RA) and healthy volunteer (Vo).

	RA (N=198)	Vo (N=191)	p.value*
Smoking history	59 (29.8)	29 (15.2)	<0.01
Alc frequency (/week)	0	94 (47.5)	0.17
	1-5	77 (38.9)	
	6-	27 (13.6)	
Alc (unit/day)	-2	147 (74.2)	0.09
	2-6	21 (10.6)	
	6-	30 (15.2)	
Caffeinated coffee (cup/day)	0	45 (22.7)	0.19
	0-1	67 (33.8)	
	1-4	69 (34.8)	
	4-	17 (8.6)	
Decaffeinated coffee(cup/day)	0	188 (94.9)	0.14
	0-1	8 (4.0)	
	1-4	2 (1.0)	
	4-	0 (0.0)	
Japanese tea (cup/day)	0	18 (9.1)	0.43
	0-1	42 (21.2)	
	1-4	66 (33.3)	
	4-	72 (36.4)	

Values are n (%). \*Fisher's exact test for RA and Vo.

Alc, alcohol.

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#### HPR Service developments, innovation and economics in healthcare

#### THU0696-HPR TRANSITION READINESS ASSESSMENT TOOLS (TRAT): A PRELIMINARY SINGLE-CENTRE PAEDIATRIC RHEUMATOLOGY TRANSITION PROGRAMME (PRTP) EXPERIENCE AND OUTCOMES IN SINGAPORE

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**Background:** Majority of childhood onset rheumatic diseases often continue into adulthood. Care for these youth especially during their transition from child centred to adult oriented healthcare system is crucial and challenging. The Paediatric Rheumatology Transition Programme at KK Women's and Children Hospital (KKH) in Singapore was developed in 2016. In 2017, we have adopted the American College of Rheumatology Transition Readiness assessment tools (TRAT) with modification to assess the readiness of our paediatric rheumatology patient cohort.

**Objectives:** To assess factors contributing to the outcomes of Paediatric Rheumatology Transition Programme at our institute using the Transition Readiness Assessment Tools (TRAT)

**Methods:** The TRAT composed of 4 components – transition-importance, transition-confidence, medical knowledge/healthcare usage (MKHU-23 questions), transition-readiness assessment questionnaires (TRAQ, 5 domains – medicine management (MM), appointment management (AM), health issue tracking (HT), communications with providers (CP) and daily activity management (DAM)). Each component score was computed into 0-10 (scores >7 defined acceptable responses). Nonparametric statistics were used to describe and analyse the data.

**Results:** 106 patients (52.8% female) with SLE(42.5%) and JIA(50.0%) with median age of 20.0 (18.8-20.6) years were recruited. Median