predetermined $\alpha=0.1$). Least squares (LS) mean% change in eGFR at 24 weeks from baseline was

-1.73% for verinurad/febuxostat vs +0.55% for placebo ($p=0.71$). LS mean% change in sUA was -57% in the verinurad/febuxostat vs an increase of 7% in the placebo group at 12 weeks ($p<0.0001$). This effect was sustained at 24 weeks (62% reduction with verinurad/febuxostat vs 5% increase with placebo; $p<0.0001$). Excluding patients with prior gout avoided the need to administer gout prophylaxis, and only one gout flare-up (3%) was reported in the verinurad/febuxostat group. Most adverse events (AEs) observed were mild to moderate. AEs reported in more than one patient on active treatment were diarrhoea, dizziness, and nasopharyngitis.

Conclusion: Treatment with verinurad + febuxostat significantly reduced hyperuricemia and albuminuria in patients with T2DM. The effect was rapid, and the improvement was sustained through Week 24, suggesting that an intensive urate-lowering strategy that combines a URAT1 inhibitor with a xanthine oxidoreductase inhibitor may protect against the progression of diabetic kidney disease. Further studies are planned to confirm the efficacy of a verinurad-led urate-lowering strategy in preventing CKD progression.

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OP0208

EFFECT OF SERUM URATE LOWERING WITH ALLOPURINOL ON BLOOD PRESSURE IN YOUNG ADULTS

Angelo Gaffo^{1,2}, David Calhoun¹, Elizabeth Rahn¹, Suzanne Oparil¹, Paul Muntner¹, Li Peng¹, David Redden¹, Tanja Dudenbostel¹, Jeff Foster¹, Stephanie Biggers¹, Daniel Feig¹, Kenneth Saag¹. ¹University of Alabama at Birmingham, Birmingham, United States of America; ²Birmingham VA Medical Center, Birmingham, United States of America

Background: The association between serum urate and hypertension continues to be controversial. Animal models and studies in adolescents provided strong support of urate-lowering therapy (ULT) efficacy to improve early hypertension (1), while one recent randomized-controlled study in adults failed to find benefit (2).

Objectives: To test the hypothesis that serum urate reduction with allopurinol would lead to blood pressure reductions in young adults with pre-hypertension.

Methods: Single center, double-blinded, crossover trial in which participants were randomly assigned to allopurinol (300 daily mg) or placebo for a period of one month each. Adults ages 18-40, with baseline systolic blood pressure (SBP) ≥ 120 and < 160 mm Hg or diastolic blood pressure ≥ 80 and < 100 mm Hg, and serum urate ≥ 5.0 mg/dL (>297.4 $\mu\text{mol/L}$) or ≥ 4.0 mg/dL (237.9 $\mu\text{mol/L}$) (men or women, respectively) were enrolled. Main exclusion criteria included chronic kidney disease, gout, or use of ULTs. The primary outcome was change from baseline in SBP assessed by 24 hour ambulatory blood pressure monitoring. Safety assessments were also conducted.

Results: 99 participants were randomized, and 82 completed study participation (Table 1). Serum urate decreased by -1.33 ± 1.21 mg/dL (-79.1 ± 72.0 $\mu\text{mol/L}$) during the allopurinol period ($p<0.001$) and by a non-significant -0.04 ± 0.75 mg/dL (2.4 ± 44.6 $\mu\text{mol/L}$) while taking placebo. SBP changed by -0.71 ± 8.21 mmHg during the period assigned to allopurinol versus -0.16 ± 7.33 mmHg during the period assigned to placebo. The difference between these changes in SBP was not significant ($p=0.52$) (Table 2). Changes in diastolic blood pressure and mean ambulatory blood pressure also were not significantly different during allopurinol and placebo exposure periods. In post hoc analyses, there was a trend towards significant blood pressure decreases in the small participant subgroup with serum urate of > 6.5 mg/dL (> 386.7 $\mu\text{mol/L}$) at baseline visit. No allopurinol hypersensitivity events or other serious adverse events were observed.

Conclusion: In the intention-to-treat analysis, urate-lowering therapy with allopurinol in young adults did not lead to reductions in blood pressure when compared with placebo. Blood pressure reductions with allopurinol may be limited only to participants with higher baseline serum urate levels.

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Table 1. Baseline characteristics of participants (n =99)

	Mean or frequency
Age (years)	28.0 $\pm$ 7.0
Sex	62 (63%)
Men	37 (37%)
Women	
Race/Ethnicity	40 (40%)
African American	59 (60%)
Not African American	
Serum urate	6.4 $\pm$ 1.0 mg/dL (380.7 $\pm$ 59.5 $\mu\text{mol/L}$)
Men	4.9 $\pm$ 0.7 mg/dL (291.5 $\pm$ 41.6 $\mu\text{mol/L}$)
Women	
Blood pressure at screening	133.8 $\pm$ 10.0
Mean systolic (mmHg)	84.3 $\pm$ 8.8
Mean diastolic (mmHg)	

Table 2. Change in blood pressure parameters during allopurinol and placebo treatment phases (n=99). Mean (SD)

Outcomes (mmHg)	Placebo	Allopurinol	p
Systolic blood pressure	-0.16 (7.33)	-0.71 (8.21)	0.52
Diastolic blood pressure	-0.22 (5.81)	-0.28 (6.58)	0.68
Mean arterial pressure	-0.43 (5.63)	-0.54 (6.86)	0.54

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THURSDAY, 13 JUNE 2019

Treatment is more than drugs

OP0209-PARE IMPROVING MENTAL WELLBEING - COACHING PEERS TO USE TOOLKIT FOR MIND

Tiina Hongisto. The Finnish Rheumatism Association, Helsinki, Finland

Background: The theme for the Finnish Rheumatism Association for 2019 is Mind and Me. The Age Institute in Finland launched a project called Mental Wellbeing to Promote Older People's Knowhow to Face Life's Challenges and the project was piloted at the Finnish Rheumatism Association in 2018. During the pilot project, staff members from the Finnish Rheumatism Association and volunteers from its member organisations were trained as Tools for Mind Coaches. This training gave new tools for peer support targeting older people and their mental wellbeing. The Coaches may use the tools developed by the Age Institute, and these include Mind Tools, Senior Mind Pack of 52 cards, Nature Attraction Path, A Guide for Life Skills Coaches and a pocket book on Mental Wellbeing. The project especially targeted older people and their families in challenging life situations by promoting their mental wellbeing.

Objectives: To disseminate the theme and activities of mental wellbeing in member associations. To utilise the trained mental wellbeing coaches for tutoring in older people groups. To utilise the Tools for Mind in the activities of the Finnish Rheumatism Association and its member associations. To promote mental wellbeing to members

Methods: In the pilot project in 2018 the Age Institute organized three mental wellbeing training sessions for peer support group coaches, each lasted 1-2 days. The Finnish Rheumatism Association provided the coaches with some of the Tools for Mind. The training sessions included theory and practices. Participants were introduced how to use the Tools for Mind and they were encouraged to think for other applications of the tools. Also the themes discussed included elements of mental wellbeing, solution-focused approach, organising peer support groups for old people with chronic illnesses and ethical principles for group activities.

Results: There were altogether 11 people from the Finnish Rheumatism Association and its member associations that finished the training for Mind Coaches. Feedback from the participants was positive and the Tools for Mind were not only considered as useful practical tools but they also increased self-confidence and enthusiasm for peer led support groups. Senior Mind Pack of 52 cards were described as multipurpose and having good visual quality. All Tools for Mind were considered as thought-provoking tools to start conversation. Practical tools help

to recognise new aspects of one's own illness and they can be used to give support to people in different stages of their illness. Participants felt that forming groups and increasing cooperation between trained coaches and local associations need to be supported by the umbrella organisation, Finnish Rheumatism Association. Tools for Mind have successfully been used in a Fibromyalgia group and in senior groups for veterans (who did not have any RMDs).

Conclusion: The Finnish Rheumatism Association is creating new activities to endorse mental wellbeing. The training in 2018 will be used as a model for training coaches in mental wellbeing and it will be introduced in member organisations in 2019. Four training sessions will be arranged around Finland in the spring 2019. The programme will follow the pilot project programme. Training includes learning how to use the tools for mental wellbeing, going through the elements of mental wellbeing, solution-focused practices, organising peer support groups for old people with chronic illnesses and ethical principles. If possible, it is always good to have a trained Coach in the training, to tell about his/her experiences of using the Tools for Mind, how people have reacted to using the tools, and what kind of challenges and good moments the coach has experienced in group work. In 2019, the tools are utilised for example in monthly tasks concerning mental wellbeing and the Senior Mind Pack of 52 cards are being used in the member organisation visits to start conversation.

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THURSDAY, 13 JUNE 2019

Diagnostic challenges in vasculitis

OP0210

FALSE POSITIVES OF ULTRASOUND IN GIANT CELL ARTERITIS. SOME DISEASES CAN ALSO HAVE HALO SIGN

Elisa Fernández, Irene Monjo, Gemma Bonilla, Chamada Plasencia, Maria-Eugenia Miranda-Carus, Alejandro Balsa, Eugenio de Miguel. *La Paz University Hospital, Rheumatology, Madrid, Spain*

Background: Giant cell arteritis (GCA) is the most common systemic vasculitis in the elderly. The halo sign has been shown as an accepted valid test in the diagnosis of GCA in trained units¹⁻². However, to further improve the specificity, the sonographer should know some pathologies that can mimic halo signs since they also produce a hypoechoic increase of the arterial wall thickness.

Objectives: The aim of our study was to identify the causes and diseases that could be associated with the false positive diagnoses of GCA made by color Doppler ultrasound (CDUS).

Methods: Observational study of 305 patients with temporal artery CDUS findings compatible with GCA. The medical histories of these patients were reviewed and demographic, physical examination, clinical and analytical data were collected. The clinical diagnosis based on the long term follow-up of the patient was established as the definitive true diagnosis.

Results: 13 of the 305 cases included (4.3%) were false positives. The characteristics of these 13 patients and their final diagnoses are shown in table 1. 69.2% were women, while 30.8% were men. The mean age was 73.3 ± 8.0 years. Analytically, the mean ESR was 64.8 ± 42.3 mm/h, CRP 50.8 ± 60.0 mg/L and hemoglobin 12.6 ± 2.0 g/dL. Five patients (38.5%) fulfilled the ACR GCA classification criteria and eight did not (61.5%). A temporal artery biopsy was performed in 8 of the 13 patients (61.5%), with negative results in all of them. Eleven patients had CDUS involvement of superficial temporal arteries. Five had 1 branch involved (38.5%), three 2 branches (23.1%), one 3 branches (7.7%) and two 4 branches (15.4%). In addition, two patients (15.4%) had isolated halo sign in the axillary arteries, one unilateral and the other bilateral. Regarding the definitive diagnosis, four patients were polymyalgia rheumatica (30.8%), three atherosclerosis (23.1%), and there was one case of non-Hodgkin's Lymphoma type T, osteomyelitis of the skull base, primary amyloidosis associated with multiple myeloma, granulomatosis with polyangiitis, urinary sepsis and narrow-angle glaucoma. Some of these cases were false positives probably due to exam errors. However, others were due to diseases that increase the arterial wall thickness probably caused by cell infiltration and related edema (as Hodgkin's Lymphoma type T and ANCA-associated vasculitis) or by hypoechoic material deposit (as atherosclerosis and primary amyloidosis/multiple myeloma).

Table 1. Final diagnoses for false positive halo signs and associated ultrasound findings

Patient	Definitive diagnosis	Biopsy result	Artery involved	Number of arterial branches
1	Non-Hodgkin's T lymphoma	Negative	Temporal	3
2	Narrow-angle glaucoma	No done	Temporal	1
3	Osteomyelitis of the skull base	No done	Temporal	4
4	Polymyalgia rheumatica	Negative	Temporal	2
5	Urinary sepsis	Negative	Temporal	1
6	Polymyalgia rheumatica	Negative	Temporal	1
7	Polymyalgia rheumatica	Negative	Temporal	1
8	Amyloidosis due to multiple myeloma	Negative (deposit of amyloid material)	Temporal	4
9	Atherosclerosis	No done	Axilar	
10	Atherosclerosis	No done	Axilar	
11	Polymyalgia rheumatica	Negative	Temporal	1
12	Atherosclerosis	Negative	Temporal	2
13	ANCA-associated vasculitis	No done	Temporal	2

Conclusion: The percentage of false positives in the CDUS for the diagnosis of GCA is low. Nevertheless, some other diseases can also produce halo sign and the clinician should be aware of this to improve the accuracy of the ultrasound test.

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OP0211

ULTRASONOGRAPHY CAN POTENTIALLY BE THE FIRST CHOICE OF IMAGING IN SUSPECTED EXTRA-CRANIAL GCA

Hilde Hop¹, Douwe J Mulder¹, Maria Sandovici², Andor Glaudemans³, Arie Van Roon¹, Riemer Slart³, Elisabeth Brouwer². ¹University Medical Center Groningen, Internal Medicine, Groningen, Netherlands; ²University Medical Center Groningen, Rheumatology and Clinical Immunology, Groningen, Netherlands; ³University Medical Center Groningen, Nuclear Medicine and Molecular Imaging, Groningen, Netherlands

Background: Color duplex ultrasonography (CDU) is recommended as first line of imaging in patients suspected for cranial GCA [1]. However, extra-cranial involvement without temporal artery involvement is found in up to 40% of GCA patients [2]. CDU is very suitable to also assess extra-cranial artery inflammation, of which the axillary artery is relatively easy to assess. However, data on the value of CDU in extra-cranial GCA is limited [3].

Objectives: We aimed to (1) evaluate the performance of axillary artery CDU in patients with extra-cranial GCA by comparing CDU findings with [18F]-FDG PET/CT findings. Furthermore, to (2) compare the sensitivity and specificity of adding assessment of axillary arteries to temporal artery CDU, over temporal artery CDU only.

Methods: Consecutive patients suspected of GCA who underwent CDU examination of the temporal and axillary arteries between 2013 and 2017 were