

## Video abstract transcript

### **Traditional and Disease-Specific Risk Factors for Cardiovascular Events in Antineutrophil Cytoplasmic Antibody-Associated Vasculitis: A Multinational Retrospective Study**

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#### **Slide 1:**

Dear Colleagues, Dear Rheumatology Society, Dear Journal of Rheumatology. This is a great pleasure that the journal picked our article named “Traditional and Disease-Specific Risk Factors for Cardiovascular Events in ANCA-Associated Vasculitis: A Multinational Retrospective Study” as an Editor’s pick in the current issue. This article really brought together a lot of investigators in the field of ANCA-associated vasculitis, ranging from the Americas over to China, which included a significant proportion of the patients.

#### **Slide 2:**

Cardiovascular disease is a key issue in ANCA-associated vasculitis and is a driver of premature mortality in our patients. This is a study from Partners (MGH) in Boston, looking at 429 patients, of whom 269 had MPO-ANCA vasculitis and 160 had PR3-ANCA vasculitis. You can see that there is an increased mortality rate in comparison to a matched background population. It was reported that the ratio of observed to expected deaths was a bit over 2-fold higher, and then the authors looked specifically at the causes of death and you can see that the mortality due to cardiovascular disease was also increased by 2.3 fold. This is a rather contemporary cohort, with a long-term follow-up of 7 years.

**Slide 3:**

This study looked at patients in the UK and a huge dataset combining different forms of cardiovascular events (12 in total). They found that, when you lump together all vasculitides (either localized or with systemic character), the cardiovascular event rate is still higher. This was not so pronounced as in systemic sclerosis or systemic lupus erythematosus; I would guess if you would just focus on ANCA-vasculitis you would see a higher rate of cardiovascular events.

**Slide 4:**

This study from British Columbia looked at myocardial infarction and stroke as a combined end point and then specifically looked at these in detail, adjusted for several variables. They found that myocardial infarction is significantly more often observed in GPA patients, and similarly, the trend was also observed for stroke; although this was not significant. Other cardiovascular events and comorbidities were also more often observed in patients with GPA.

**Slide 5:**

In our study, we have combined different cohorts from all over the world. Overall, we had 2286 patients, with a vast majority coming from China, Russia, EU (excluding UK), the UK, and a smaller proportion from the US and Turkey. In this figure, I highlighted that patients in China were older, were more frequently MPO-ANCA positive and had a diagnosis of MPA, and a more pronounced impairment of kidney function.

**Slide 6:**

Here are the main results. We found that 10.7% had a cardiovascular event during the follow-up period. Of these, 8.1% had a myocardial infarction, 3.2% had a stroke and both occurred in 0.6%. The median time to a cardiovascular event was 17.5 months, and thus, in contrast to venous thromboembolism, did not occur more often during phases of active disease. In the multivariable analysis, we found that current smoking status, age at vasculitis onset, pulmonary disease, kidney disease and Chinese origin were independent risk factors for cardiovascular events. We hope that our results contribute to the field, and we hope that this work stimulates further work in the field, especially looking at novel therapeutic approaches (such as SGLT2 inhibition) to improve the prognosis of our patients.