**Title: LINC 22: PAD in Germany 2009-2018 With Dr Rammos**

**Participants: Dr Christos Rammos**

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**Dr Christos Rammos**

- Hi, my name is Christos Rammos from the Department of Cardiology and Vascular Medicine from the University of Duisburg Essen. And we've analysed the gender differences in peripheral artery disease in Germany from 2009 to 2018.

**Study Rationale**

Well, actually we know that more than 200 million people worldwide suffer from peripheral artery disease and of course we know that lipid lowering and antiplatelet therapy are the most important tools in reducing the burden of cardiovascular disease. But however, despite clear guideline recommendations regarding medical treatment in these patients, implementation is still inadequate and depends on social status, race, and gender. And gender differences are becoming increasingly important, especially in patients with atherosclerosis. And we know that women experience higher system delays and receive less aggressive, invasive treatment and pharmacotherapies. Now, if gender based inequalities in outpatient care and medical treatment in peripheral artery disease patients exist, has not been elucidated in depth. So, we aim to investigate the gender differences in prevalence, care and treatment of PAD, stratified by intermittent claudication and CLTI, in this nationwide cohort.

**Patient Cohort and Study Design**

Well actually, we didn't have this kind of inclusion exclusion criteria, as we analysed claims data, ambulatory claims data, for all statutorily insured patients in Germany, which is comprising 70 million patients per year and nearly 87% of the German population. The remainder of the German population, so 13%, are privately insured and were not included, due to the lack of availability of the data. And prevalence was of course, stratified by age and gender within the study frame from 2009 to 2018.

**Key Results**

In total, we had 17 million patients with PAD that were identified, of which 47% were female. And we observed that, of course, that gender is an important factor affect in presentation to a vascular specialist and to medical therapy. And our data highlighted that female patients in Germany are both less likely to present to a vascular specialist and to receive guideline recommended medical therapy compared with male patients. And alarmingly, the prescription rates of statins even decreased with advancing stages of the disease and were lower in patients with CLTI and patients with intermittent claudication. And with more advanced stages of the disease, with CLTI, women were even less likely to receive a statin than male patients.

**Conclusions**

Our results demonstrate that we have a gender based difference in pharmacotherapy and special outpatient care in patients with peripheral artery disease. And while overall, overall outpatient treatment by vascular specialists and guideline recommended therapy are low, women and especially patients with CLTI remain undertreated. And our data finally indicates that women with peripheral artery disease experience an even greater delay in diagnosis and greater insufficiencies in treatment, despite having at least the equal burden of disease to male patients.

**Influence on Practice**

Our work calls for more awareness work to be done to sensitise the medical professionals and patients alike to implement guideline recommendations for PAD patients and in particular to help bridge this gender inequality.

**Further Study Needed and Next Steps**

Our claims data now, enabled the collection of large amounts of information. However, the design of the study means that the interpretation of those data only allows for drawing correlations and not direct causalities. So, we believe that we have to analyse more in depth the causalities and go down to a patient level data to draw further conclusions. And of course, we have to account for treatment adherence to the prescribed pharmacotherapy. And, finally there was no insight into the laboratory measurement. So this would be the next step for further studies.