**Title: VIVA 22: MIMICS-3D Registry: 36-Month Outcomes of BioMimics Stent in Real-World Patients**

**Participants: Dr Michael Lichtenberg**

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**Dr Michael Lichtenberg**

" - Hello, my name is Michael Lichtenberg from Arnsberg Vascular Centre in Germany. It's a pleasure to be here. I'm an interventional angiologist, and I will talk and discuss with today, some very interesting new data on two exciting technologies.

**The BioMimics 3D Stent**

So this study is a prospective registry study analysing the efficacy and safety of the BioMimics 3D helical stent. This new stent concept was already evaluated, in first-in-man trials, prospective IDE trials, and latest in a prospective EU study. The data which I'm going to present here today is a subset analysis of this EU registry, which analysed long lesions within this registry.

**Importance of this Registry**

So the very important aspect of this registry is that we analysed long lesions in this registry and analysed safety and efficacy for the stent in patients with long SFA and popliteal segment, and one stenosis or inclusions.

**Study Design and Patient Population**

So this is a prospective multicenter observational study, evaluating the safety and efficacy of this BioMimics 3D stent in patients with peripheral artery disease. 23 investigation sites included more than 500 patients and we followed up these patients at three years.

**Findings at Three Years**

So we had a very good technical success in overall for the whole study cohort. So the procedural success was 97%. The primary endpoint for the whole registry cohort at 12 months was 89% freedom from clinical driven TLR. We analysed three subgroups, patients with moderate lesions, length less than 140 millimetres, long lesions meaning length between 140 and 190 millimetre, and very long lesions with lengths of SFA and popliteal stenosis or lesions more than 190 millimetre. And we found very good outcomes for these three different lesion subgroup analysis with a very good primary effectiveness endpoint at 12 months, in terms of freedom from CDTLR. For the moderate lesion group, we had a freedom from CDTLR of 93%. For the long lesion group again, between 140 and less than 190 millimetre. We had a freedom from CDTLR of 85% documented. In a very long lesions, more than 190 millimetres, we had a freedom from CDTLR of 82% documented.

**Take-home Messages**

So this new stent concept actually when you compare this non-drug eluting stent with drug-eluting stent you can clearly see that the data outcome for the stent are the same, like drug-eluting stents, even that we included more complex lesions, more complex patients. We included a lot of patients with critical limb ischemia. We had excellent three year results. Including those for long lesions and very long lesions. So this stent design seems to be a very good treatment option for peripheral artery disease in the SFA popliteal segment one, with complex and long lesions.

**Knowledge Gaps and Further Research**

So, further analysis will deal now with the question, is additional drug coated balloon angioplasty together with the stent, as pre or post dilatation and additional benefit. So we will also do here a subset analysis, and we are waiting this data very soon. We also will evaluate the stent for popliteal segment 2 and 3. This is a prospective trial which will hopefully start soon.”