

SUPPLEMENTARY MATERIAL

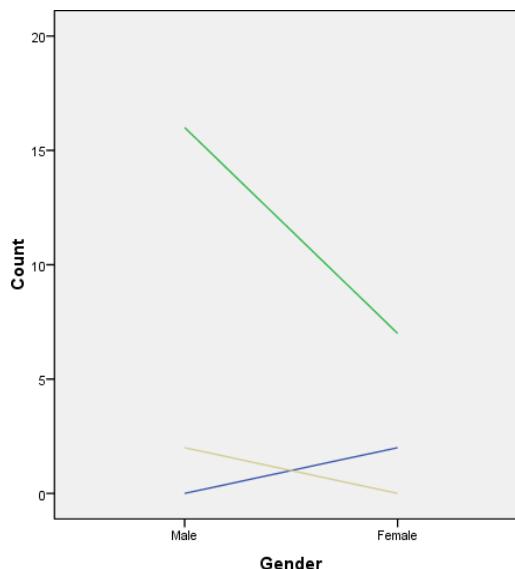
The impact of diabetes on the outcomes of lower extremity arterial disease in patients with vascular surgical interventions in Kosovo

Dion Haliti,¹ Dea Haliti,¹ Laura Leci Tahiri,¹ Nora Shabani-Behrami,² Elena Hajdari,¹ Naim Haliti,¹ Ragip Shabani,¹ Fehim Haliti,¹ Qenan Maxhuni,³ Rrahman Ferizi¹

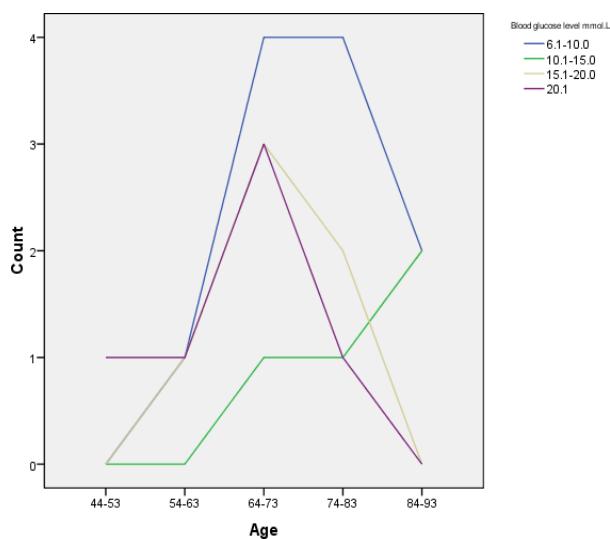
¹Faculty of Medicine, University of Prishtina, Kosovo; ²Hospital Brothers of Mercy Regensburg, Germany; ³Alma Mater Europaea Campus College "Rezonanca", Prishtina, Kosovo

Correspondence: Elena Hajdari, Faculty of Medicine, University of Prishtina, Kosovo, elenahajdari@gmail.com

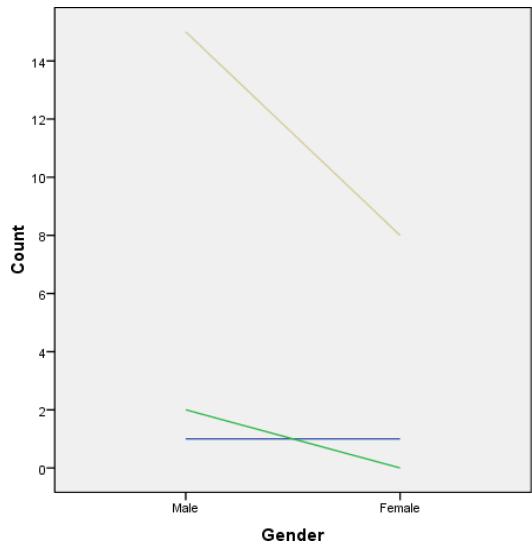
Key words: type 2 diabetes mellitus, lower extremity arterial disease, lower limb amputation, cardiovascular disease, critical limb ischemia revascularization.



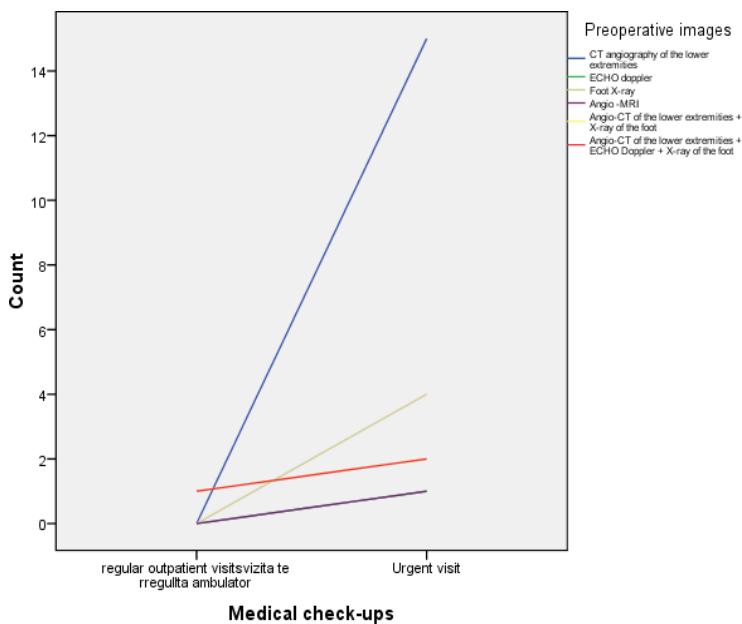
Supplementary Figure 1. Correlation between gender and diabetes management in patients with lower extremity ischemic artery disease (LEAD). In this analysis, a statistically significant association was observed, indicating that diabetes management patterns differ significantly between men and women. This result suggests that factors such as gender may influence the way diabetes is treated and controlled, which has important implications for the personalization of therapy and clinical management of patients with LEAD and type 2 diabetes.



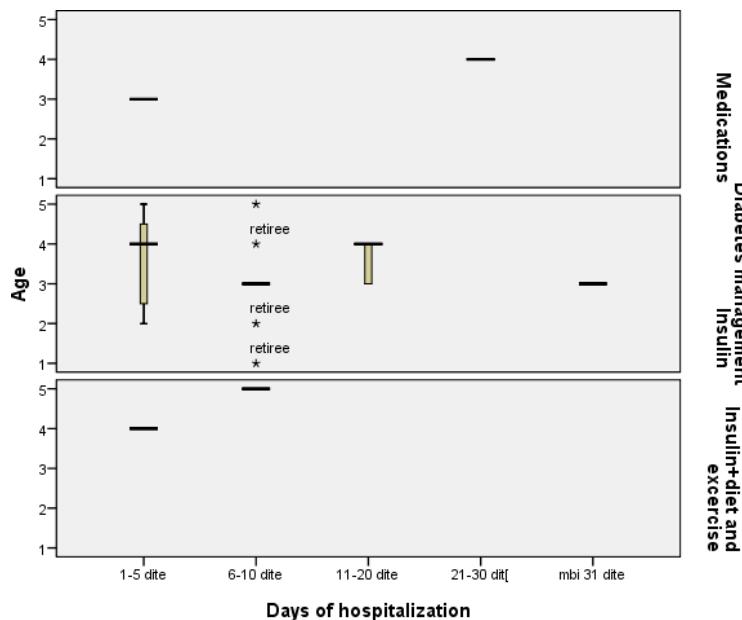
Supplementary Figure 2. Correlation between patient age and blood glucose levels in the group of patients with type 2 diabetes mellitus and lower extremity ischemic artery disease (LEAD). Statistical analysis shows that there is a statistically significant association between age and blood glucose levels. This indicates that with increasing age, patients tend to have higher glucose levels, which may contribute to the worsening of LEAD and vascular complications. This finding emphasizes the importance of regular monitoring of glycemic control, especially in older patients with diabetes and peripheral ischemia.



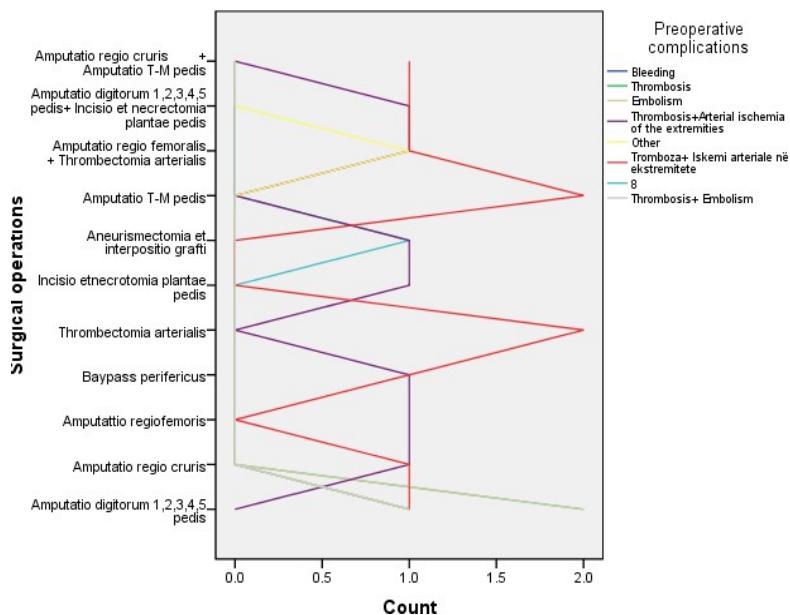
Supplementary Figure 3. Statistically significant correlation between gender, diabetes management and occupation. The analysis showed that different ways of managing diabetes (including medication control, diet and regular glucose monitoring) are closely related to the gender of the patients, with men and women showing different patterns in the approach to treatment. Also, the occupation of the patients emerged as an important factor influencing the management of the disease, with variations in adherence to therapy and the occurrence of complications. This triple association suggests the need for a more personalized approach to diabetes treatment, taking into account social and professional factors to improve clinical outcomes in patients with LEAD and type 2 diabetes.



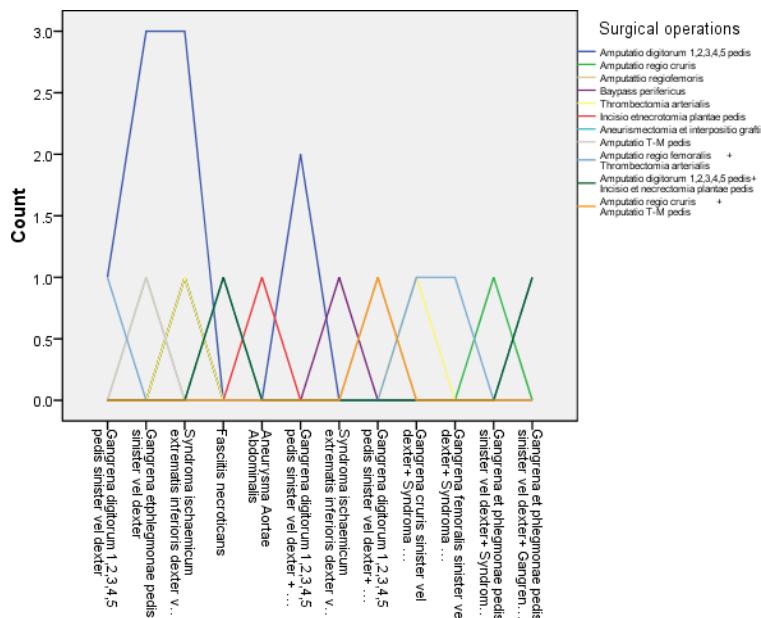
Supplementary Figure 4. Correlation between the control of lower extremity ischemic arterial disease (LEAD) and preoperative images. Shows a statistically significant correlation between clinical examinations of LEAD and preoperative imaging results. This relationship highlights the importance of using imaging methods, such as angio-CT and echo-diagnoses, in the assessment of the condition of the arteries before surgical intervention. Through these preoperative examinations, the level and progression of ischemia can be accurately determined, helping to choose the most appropriate surgical strategy for patients with type 2 diabetes mellitus and LEAD. This correlation indicates that imaging examinations are indispensable for planning and optimizing vascular treatment in this high-risk population.



Supplementary Figure 5. Interaction between patient age, which is a key factor in the progression of lower extremity ischemic artery disease (LEAD), and the mode of hospitalization and days of hospitalization that reflect the complexity of treatment and postoperative course. Patient occupations, which may affect exposure to risk factors and overall disease management. The analysis shows that these factors are statistically significantly interdependent, highlighting the need for a multidimensional approach to the management of patients with LEAD and diabetes. This highlights the importance of personalized treatment that takes into account age, social status, and mode of diabetes control to improve surgical and health outcomes.



Supplementary Figure 6. Distribution of preoperative complications in patients undergoing various vascular and lower extremity surgical interventions, where the vertical axis lists the types of operations (such as amputations at different levels, thrombectomy, peripheral bypass, and aneurysmectomy) and the horizontal axis indicates the number of cases. The colors distinguish complications, including bleeding, thrombosis, embolism, thrombosis with arterial ischemia, and combinations thereof. The results show that thrombosis and arterial ischemia are the most frequent complications in several types of operations, especially in amputations and thromboectomies, while bleeding and embolism occur less frequently. The graph allows for a visual comparison of the frequency of complications by type of intervention.



Supplementary Figure 7. Correlation between clinical diagnoses and surgical interventions in patients with type 2 diabetes mellitus and lower extremity ischemic artery disease, illustrating the distribution of various preoperative complications such as bleeding, thrombosis, embolism, and combined thromboembolic or ischemic events across different types of vascular and limb surgeries, including multiple levels of amputations, bypass procedures, thrombectomies, and aneurysmectomies.