To assess the technical success and safety of using Angio-Seal vascular closure device in antegrade femoral access.

In this retrospective study, a total of (201) consecutive patients who underwent an interventional procedure due to PAOD were included. In each case, antegrade peripheral endovascular procedure was performed via the common femoral artery (191) and superficial femoral artery (10) using the Seldinger technique, and angio-seal was used for access site closure. Two 4F sheaths, seventy-one 5F sheaths, one hundred and twenty-three 6F sheaths, four 7F sheaths, and one 8F sheaths were employed during the procedures. The angio-seal closure devices were deployed under ultrasonographic guidance so as to minimize the complication rate. The primary endpoint was a technically successful application of angio-seal. All complications at the access site within 24 hours were registered as a secondary endpoint.

In a group of (201) patients (72.3%) men, the technical application of angio-seal was successful in 198 patients (98.5%). Within the first 24 hours after the procedure, 3 complications (1.5 %) were recorded including, one pseudo-aneurysm, one hematoma and one arterial occlusion which required surgical intervention.

Angio-seal is a safe and effective device with high technical success and acceptable complication rates for femoral antegrade access site closure after peripheral endovascular procedure.