Abstract
Thrombosis of the vascular access is the main problem in hemodialysis therapy for end-stage renal disease. In most cases, thrombosis is associated with the presence of one or more stenoses in the access. These stenoses are due to progressive neointimal hyperplasia. In this thesis, methods are described to timely identify patients at risk of thrombosis, to treat the stenoses timely with an angioplasty procedure, to depict the stenotic lesions with a new imaging modality, and to treat the thrombosed access.