Valorisation addendum
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Socioeconomic relevance

This thesis describes the results of treated patients with chronic deep venous obstruction. With a deep vein thrombosis incidence of 1-2 per 1000 per year and resulting 20-50% inadequate recanalization, there is an ample socioeconomic burden. Specifically, when the iliofemoral tract is involved, collateral potential is poor and complaints can be more severe. On top of that, there is a group of patients with clinical relevant iliac vein compression syndromes which should be included as a contributing factor to the socioeconomic load.

Due to the venous outflow obstruction and related debilitating complaints, patients are frequently restricted in participating the working process and are less able to join in social events. As a consequence, this creates a detrimental effect on a patients’ quality of life.

Former studies did show that both medical costs and total socioeconomic costs were higher for patients who developed PTS during the follow up after a DVT. In developed countries, healthcare costs due to chronic venous obstruction are estimated at 1-2% of the national health care budget. In order to reduce this, it would be beneficial to be able to treat patients with deep venous obstructions in a highly efficient way.

Former decades have made major improvements in the development of treatment options and endovascular interventions have shown promising results. The results of interventional treated patients, presented in this thesis, provide a way to reduce clinical complaints. The reduction in venous claudication seems to be the most promising result. As a consequence, patients are able to participate in social events and can take part in the working life again.

With the refinement of diagnostic tools and improving knowledge regarding deep venous interventions it was pointed out that patient selection and individualized treatment should account for better results. As a result, current and future research should proceed and focus on less invasive ways in treating patients with deep venous obstruction and preventing major post interventional morbidity. With the introduction of the stenting technique below the sapheno-femoral junction an opening was created.

Target population

Outside the scientific community, there are various target groups involved in analyzing deep venous pathology and treatment of patients with venous obstructions. First of all, the general knowledge regarding the pathophysiologic mechanism should be brought under the attention. During decades, it was believed that venous reflux accounted for most problems after a deep venous thrombosis. With the current
knowledge of the deep venous obstructive component, physicians should know that there are other treatment options next to the conservative management. Moreover, it was established that in patients with lower extremity complaints the presence of abdominal or pubic collaterals should be considered as a referral indication. Specifically, this remains an important topic to reach general practitioners or dermatologists and those involved in the evaluation of patients after a deep venous thrombosis, such as doctors at the internal medicine department.

The remainder chapters in this thesis contribute to educational development of those physicians involved in the interventional treatment of patients with deep venous obstruction. First, developments and refinement of diagnostic techniques have made major contributions to the treatment one can offer nowadays. Due to the evolution of dedicated venous protocols it is possible to manufacture an individual treatment plan. As a consequence, potential percutaneous or surgical hybrid procedures can be estimated.

Although improvements have been made, there are still some persisting gaps to close. These gaps create an exceptional opportunity for medical industries to contribute to health care improvement. As we know that inflow seems to play an important role in stent patency it would be feasible to manufacture medical devices which could contribute to generate flow without the need for a surgical intervention. In the meantime there should be focus on development of analyzing system which can predict venous flow in order to predict the amount of blood flow necessary to maintain stent patency. Once this is introduced, we can inform a patient about the results that can be expected and we can further analyze which treatment strategies are cost-effective.

Activities and innovation as a result of this thesis

This thesis describes a large group of patients with extensive post thrombotic pathology. At first, hybrid procedures were performed in order to reduce clinical complaints. With refinement of techniques and while gaining more experience, we introduced percutaneous endovascular techniques. In this way, both patients and community paying health care costs can be reduced due to the lower complication rate and lesser medical costs.

With the introduction of a self-assessed score there are a few advantages in the follow up of venous patients; first of all are scorings of clinical signs and symptoms subjective and superior when provided by only one person. Second, are longitudinal scorings more reliable when performed by a single person. Due to the use of a self-assessed scoring system it is made possible to reduce the number of clinician visits and are less health care costs expected.
Because of the start of a randomized clinical trial we will be able to show the clinical changes and more specifically the changes in quality of life after interventional treatment. Once this is realized, a tailored treatment approach can be implied.