

## Congress Overview

Over 1800 vascular surgeons, vascular specialists and clinical science researchers from 89 different countries made their way to Valencia, Spain to attend the 32nd Annual Meeting of the European Society of Vascular Surgery (ESVS). This was 400 more attendees than at ESVS 2017, reflecting the increasing engagement of the vascular medicine community with this event.

This year, the motto of the congress was 'Diversity Creates Knowledge', and this was apparent in the range of topics discussed in the plenaries. The eight plenary sessions covered surgical procedures, imaging techniques, and vascular trauma and also included a specific session for PAD. However, unlike most other congresses, the ESVS scientific programme is only finalized after many delegates have arrived. To encourage wider participation, the organizers use an innovative format where, on the day before the congress opens, 200 speakers each give 4-minute presentations, which are evaluated by an expert panel. One-quarter of these presentations are then chosen to be presented in an extended format in the final plenary sessions.



↑ The main exhibition area at ESVS 2018

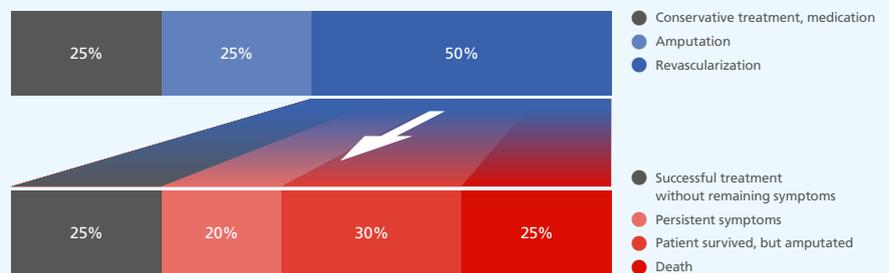
## Addressing the High Unmet Need in Patients with PAD

Under-diagnosis and under-treatment of PAD was a recurring theme across throughout the congress. Secretary of the ESVS Professor Sebastian Debus (Hamburg, Germany) believes a change in culture is required to improve the management of patients with PAD, remarking that: We vascular surgeons need to admit to ourselves that we cannot completely heal patients with surgery.

**To optimize long-term care of their patients, vascular surgeons should consider preventative strategies to reduce the risk of events and improve outcomes after procedures and invasive therapies.**

WITHIN 1-YEAR OF REVASCULARIZATION, 25% OF PATIENTS WILL DIE AND A FURTHER 30% WILL SURVIVE BUT UNDERGO AMPUTATION

### Primary treatment of patients with symptomatic PAD



↑ The rate of amputation-free survival is less than 50% within 1 year of a revascularization procedure!

The urgency of this problem was demonstrated by Professor Debus using data showing that within 1-year of revascularization, 25% of patients will die and a further 30%

will survive but undergo amputation.<sup>1</sup> With another 20% of patients still experiencing symptoms, only 25% of patients can be judged to have had a successful procedure.

With no improvements in pharmacological treatment in the setting of PAD over the past 20 years, vascular surgeons are in need of new options to offer their patients.

# New Therapeutic Options with Rivaroxaban Vascular Dose

Based on the attendees at ESVS 2018, the necessary change in culture within the specialty of vascular surgery may already have begun. The large number of delegates attending the Bayer-sponsored symposium ‘Rivaroxaban vascular dose: a breakthrough in the treatment of symptomatic PAD’ showed that many vascular surgeons are already interested in preventative medicine and how it can benefit their patients.

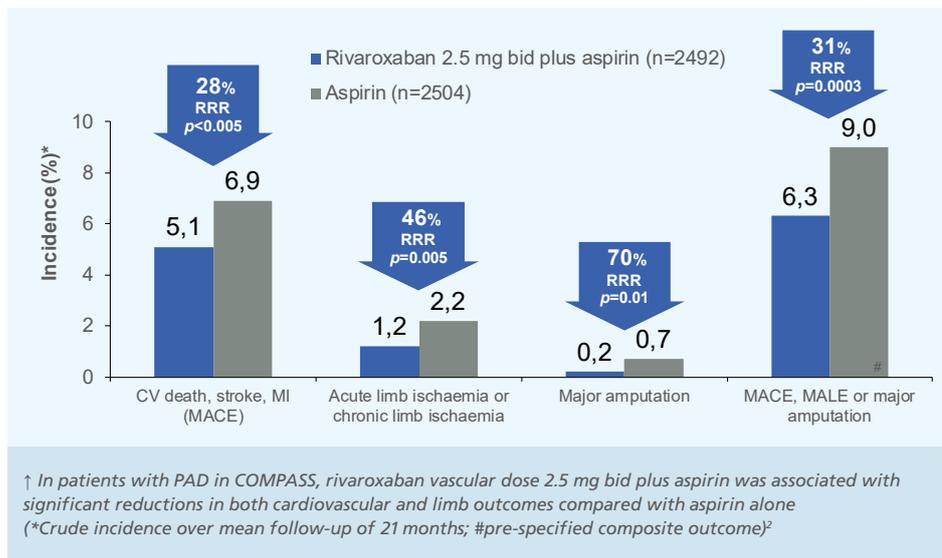
The symposium began with an introduction to the unmet need and current therapeutic options for patients with PAD from Professor Jean-Baptiste Ricco (Poitiers, France) and Professor Debus. Following the introduction,

Professor Victor Aboyans (Limoges, France), a co-author of the COMPASS PAD subanalysis, provided an overview of the data that supported the recent EMA approval for rivaroxaban vascular dose 2.5 mg bid plus aspirin in patients with CAD or PAD at high-risk of events.

The outcomes from the subanalysis that provoked most interest among the audience of vascular surgeons were the signifi-

cant reductions in limb outcomes observed in patients with PAD receiving rivaroxaban vascular dose 2.5 mg bid plus aspirin compared with those receiving aspirin alone. Acute or chronic limb ischaemia were reduced by 46% and major amputation reduced by 70%.<sup>2</sup> These findings were in addition to the reductions in major cardiovascular adverse events and all-cause mortality observed across the entire COMPASS population.<sup>3</sup>

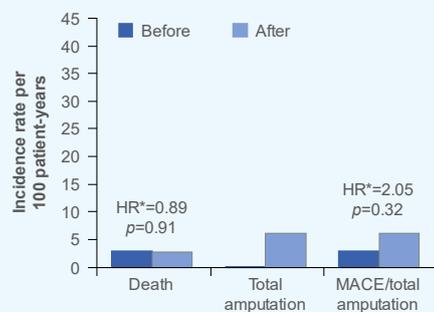
**ACUTE OR CHRONIC LIMB ISCHAEMIA WERE REDUCED BY 46% AND MAJOR AMPUTATION REDUCED BY 70%**



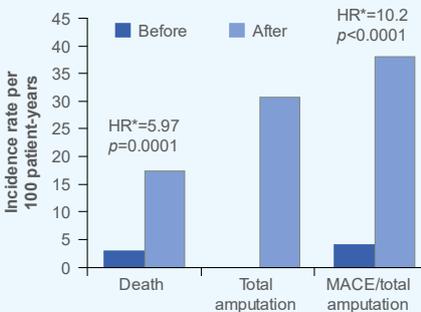
Although there was a significant increase in major bleeding associated with rivaroxaban 2.5 mg bid plus aspirin compared with aspirin alone, there were no significant increases in the most serious types of major bleeding (i.e., fatal bleeding or non-fatal intracranial haemorrhages or symptomatic bleeding into a critical organ).<sup>3</sup>

PATIENTS RECEIVING RIVAROXABAN 2.5 MG BID PLUS ASPIRIN WERE NOT ONLY LESS LIKELY TO HAVE A MALE, AND THOSE THAT DID WERE LESS LIKELY TO DIE, EXPERIENCE A MAJOR ADVERSE CARDIOVASCULAR EVENT OR REQUIRE AMPUTATION

Prognosis of MALE in patients randomized to receive rivaroxaban 2.5 mg bid plus aspirin 100 mg



Prognosis of MALE in patients randomized to receive aspirin 100 mg alone



† Rivaroxaban vascular dose 2.5 mg bid plus aspirin reduces the risk of MALE and improves the prognosis of those patients with MALE compared with aspirin alone (\*Hazard ratio (HR) determined by time-dependent Cox model)<sup>2</sup>

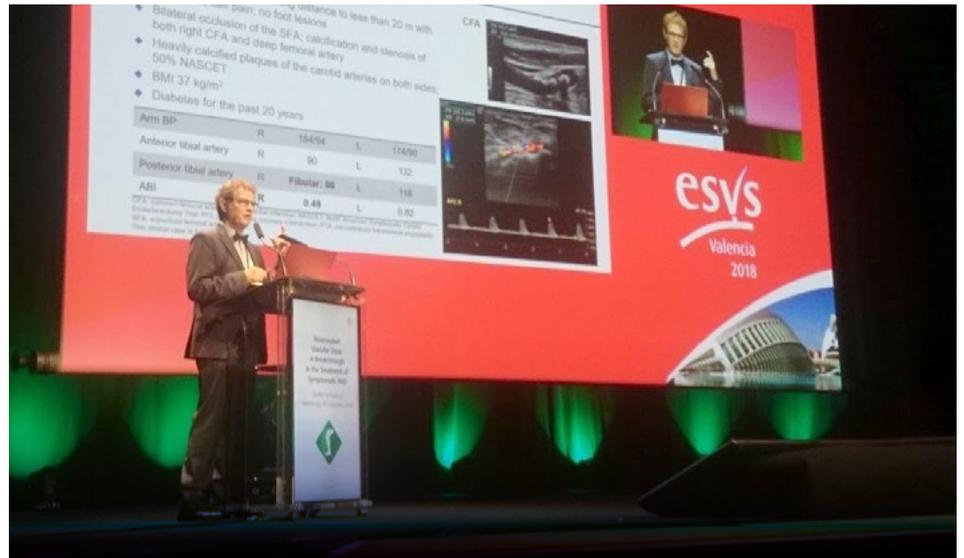
COMPASS also provided some striking data on patient outcomes following a major adverse limb event (MALE). Patients with MALE across all treatment arms were nearly 200 times more likely to need an amputation, nearly 12 times more likely to be hospitalized for cardiovascular reasons and mortality was over three times more likely than in patients who did not have a MALE. However, compared with aspirin alone, patients receiving rivaroxaban 2.5 mg bid plus aspirin were not only less likely to have a MALE, and those that did were less likely to die, experience a major adverse cardiovascular event or require amputation.<sup>4</sup>

## First Experiences of Rivaroxaban Vascular Dose in Patients with PAD

With rivaroxaban vascular dose already available in Germany, Professor Rupert Bauersachs (Frankfurt, Germany) was able to conclude the symposium presentations by providing examples of patients who he has already begun to treat with rivaroxaban vascular dose.

THE PATIENT ALSO HAD A HISTORY OF MI INDICATING THAT THEY HAD POLYVASCULAR ATHEROSCLEROTIC DISEASE

The first patient had recently undergone superficial femoral artery angioplasty to treat intermittent claudication; however, the patient also had a history of MI indicating that they had polyvascular atherosclerotic disease. Professor Bauersachs presented subgroup data from the COMPASS study showing that the composite rate of cardiovascular death, stroke and MI in such patients was 8.4% in those receiving aspirin alone, but only 5.7% in patients receiving rivaroxaban vascular dose plus aspirin, meaning that absolute risk was reduced by 2.7%.<sup>6</sup>



↑ Professor Rupert Bauersachs shares some of his experiences treating patients with PAD using rivaroxaban vascular dose.

Other cases included a high-risk patient with PAD and diabetes and a patient with polyvascular disease and moderate renal impairment with moderate renal impairment (GFR 55 ml/min). Data from the COMPASS study showed that both of these patients stand to benefit greatly from vascular dose rivaroxaban.<sup>3,6</sup> By demonstrating how data from the COMPASS trial can be used to select patients, Professor Bauersachs was able to provide the audience with more clarity on how the new rivaroxaban indication can be applied in clinical practice.

A HIGH-RISK PATIENT WITH PAD AND DIABETES AND A PATIENT WITH POLYVASCULAR DISEASE AND MODERATE RENAL IMPAIRMENT WITH MODERATE RENAL IMPAIRMENT

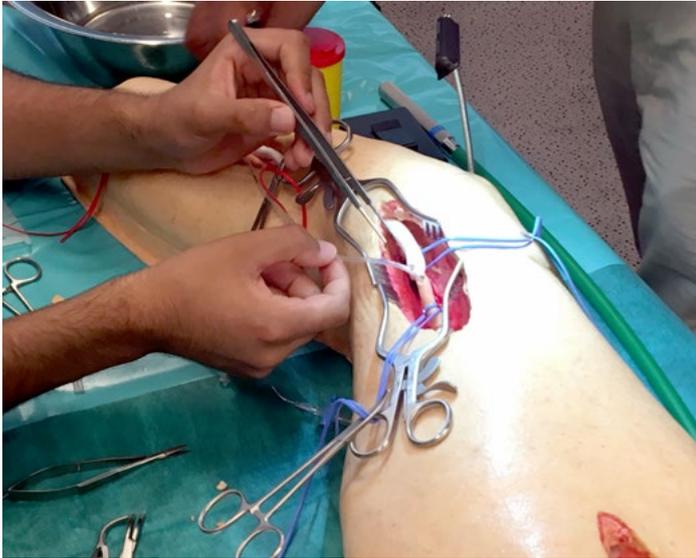
A full recording of this case discussion, as well as the other session presentations, can be found online at [www.vascularadviser.com](http://www.vascularadviser.com)

## Voyager PAD - Further evidence in PAD post revascularization

ESVS also included a session on Breaking News in Clinical trials. As well as further details on the COMPASS PAD analysis, delegates were also introduced to the ongoing VOYAGER PAD study. This will complement the data provided by COMPASS by evaluating rivaroxaban vascular dose plus aspirin in patients with symptomatic PAD undergoing peripheral revascularization procedures and provide important data on managing the risk of thrombotic events in these high-risk patients.

EVALUATING RIVAROXABAN VASCULAR DOSE PLUS ASPIRIN IN PATIENTS WITH SYMPTOMATIC PAD UNDERGOING PERIPHERAL REVASCULARIZATION PROCEDURES

## ESVS Academy: Helping Vascular Surgeons Help Patients



↑ A delegate receives expert training at one of the ESVS Academy Workshops

The new president of the ESVS, Professor Henrik Sillesen (Copenhagen, Denmark) explained that in recent years, the society had made a strategic decision to provide more educational activities at the congress to complement the discussion of new science. A key initiative is the ESVS Academy programme, which this year included 46 modular workshops lasting less than 2 hours each.

Professor Sillesen highlighted the importance of keeping these sessions relevant to the changing needs of the delegates, stating that: In previous years we had more workshops covering balloon angioplasty but, as our attendees became more familiar with this, we introduced more sessions on open surgery.

A new workshop theme for 2018 focused on patients with polyvascular disease and aimed to encourage vascular surgeons to think more about non-surgical approaches to patient management. As part of this workshop series, Professor Sillesen summed up the importance of preventative medicine by reminding attendees that they can:

**Save more lives by giving patients the right drugs than by operating. Don't forget this part if you want to be a good doctor and not just a good surgeon.**

## New Guidelines for Chronic Limb-threatening Ischaemia

ESVS 2018 also marked the second presentation of new global vascular guidelines for the management of chronic limb-threatening ischaemia. These guidelines have been developed by an independent committee of the ESVS, SVS and WFVS and aim to provide clarity for physicians treating this complex condition. Committee member, Professor Jean-Baptiste Ricco explained that:

**It is necessary to redefine the disease and encourage treatment of PAD beyond vascular interventions and increase the awareness of effective preventative treatments.**



### Further Information

To keep up to date on vascular protection in patients with PAD, visit:

➔ [www.vascularadviser.com](http://www.vascularadviser.com)

The ESVS 33<sup>rd</sup> Annual Meeting will be taking place in Hamburg on the 24–27 September 2019. For more information on this event, visit:

➔ [www.esvs.org](http://www.esvs.org)

### References

1. Norgren L et al. J Vasc Surg 2007;45:S5–S67.
2. Anand SS et al. Lancet 2018;391:219–229.
3. Eikelboom JW et al. N Engl J Med 2017;377:1319–1330.
4. Anand SS et al. J Am Coll Cardiol 2018;71:2306–2315.
5. Anand SS. American College of Cardiology. Orlando, USA, 10–12 March 2018, Oral 4017-16.
6. Connolly SJ et al. Lancet 2018;391:205–218.