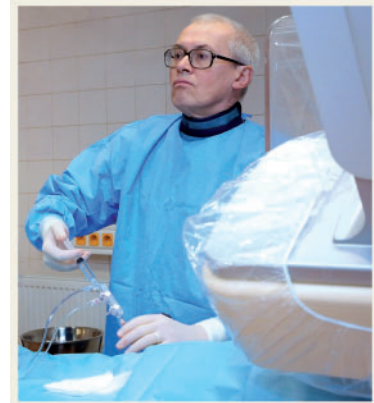


Pioneer in Cardiology

Petr Widimský MD DrSc FESC



Petr Widimský pioneered the superiority of Primary PCI over thrombolysis in acute myocardial infarction from Prague in the Czech Republic with the landmark Prague Series Trials

Petr Widimský, Head of the Cardiocenter and Dean of the Third Faculty of Medicine, Charles University and University Hospital Kralovske Vinohrady at Prague in the Czech Republic speaks about his career to Mark Nicholls.

It was the summer of 1968 and the Widimský family were on vacation in Sweden.

All seemed well on their Scandinavian sojourn, where Petr Widimský was staying with his father, the renowned cardiologist Jiri Widimský—who was considering temporary work in Gothenburg away from their home in Czechoslovakia at the time—and his mother Dagmar, who was a radio reporter.

But as they switched on the TV on 21 August, they were shocked at the images flashing back at them. ‘We were seeing pictures of Russian tanks occupying Prague’, recalled Prof. Widimský. ‘My father immediately received an offer for a permanent job in Gothenburg. Even though much later, due to family reasons, we decided to return to Czechoslovakia, I realized that a good physician can find a job anywhere and that this profession is not under the influence of politics, as many other jobs were during the Communist regime’.

Petr was considering studying biology or chemistry rather than medicine but switched to the latter, inspired in part by the circumstances on the streets of his homeland and the opportunities he felt a career as a physician would offer.

As a medical student, he started to work in a nursing position in a specialized emergency ambulance service focused on cardiac patients. This ‘interesting work’ in what was effectively a mobile coronary care unit, led to his decision to become a cardiologist and enter a field where he was to have a pioneering influence, initiating a major change in the organization of acute cardiac care and the implementation of primary PCI in most European countries. Professor Widimský’s landmark PRAGUE 1 study was the first to demonstrate the benefit of regional networking on acute cardiac care services.¹

Born in Prague in 1954, he has lived in the city for most of his life, apart from two-and-half years in the Netherlands expanding his professional experience. His father, now 92, was a Professor of Cardiology and head of the prestigious cardiology department in Prague (IKEM) from 1971 to 1983, and between 1980 and 1984 was

also vice-president of the

European Society of Cardiology. His brother, also Jiri, is Professor of internal medicine and currently president of the Czech Society for Hypertension.

Prof. Petr Widimský, who is Head of the Cardiocenter (Departments of Cardiology and Cardiac Surgery) at the Charles University and the University Hospital Kralovske Vinohrady in Prague, emphasizes that his father did not actively influence him to go into the profession, leaving him with absolute freedom to make his own decisions, but added, ‘I have seen how he loves his work, and I have seen some of his patients, who became his friends.’

He underwent his medical training at the University Hospital Kralovske Vinohrady and the Faculty of Medicine of the Charles University, with a year spent research training at the ThoraxCenter at Erasmus University in Rotterdam, and for PCI training he spent a year in Zwolle in the Netherlands. He also recalls an enjoyable visit accompanying his father, when a 4th year medical student, in February 1977 to the meeting of the ‘Osterreichisches Kardiologen Treffen’ in Bad Gastein, organized by the Austrian Society of Cardiology.

‘That was my first visit from behind the “iron curtain” after our return from Sweden in 1968. I was very much impressed by the open, friendly atmosphere of the meeting, where the Board of the European Society of Cardiology participated. I met such famous people as Henri Denolin, Paul Hugenholtz, or Franz Loogen and besides listening to interesting lectures I also experienced a lot of fun with them’.

There were a number of people who influenced him along the way, including his father; Paul Hugenholtz, ‘great person with visionary approach to cardiology’; and Harry Suryapranata, a skilled interventionalist and excellent teacher of research methods.

Over the years, Professor Widimský’s research has covered a wide area of cardiovascular medicine; from echocardiography with a focus on myocardial function and perfusion and then to interventional cardiology and acute myocardial infarction, and more recently on acute stroke and its interventional treatment.

But it is in the area of STEMI that he has gained renown as a pioneer. In 1993–94, during his PCI training in Zwolle, he saw the pioneering work of Felix Zijlstra, Harry Suryapranata, Menko-Jen De Boer, and Jan



Petr Widimský receiving ESC Gold Medal, 2014 with Panos Vardas (L) and Keith Fox (R)

Hoorntje in the field of primary PCI for STEMI. 'I became immediately "infected" by their enthusiasm and on my return to Prague, I introduced primary angioplasty in my hospital, the University Hospital Kralovske Vinohrady.'

When promoted to Head of the Cardiocenter in 1995, his first decision was to halt thrombolysis for patients admitted to this hospital, a decision that led almost immediately to a decline of STEMI in-hospital mortality from 11% to 4%, and inspired the first PRimary Angioplasty in patients transferred from General community hospitals to specialized PTCA Units with or without Emergency thrombolysis (PRAGUE) trial to test whether primary PCI can help patients transported over longer distances.¹

He regards the PRAGUE and PRAGUE-2 trials as his most important with the results of both—along with the DANAMI and LIM1 trials—as paving the way to modern treatment of myocardial infarction. 'Until the publication of PRAGUE, PRAGUE-2, DANAMI, and LIM1 trials (1999–2003) there was a strict recommendation that every patient with acute myocardial infarction must be hospitalized in the nearest hospital with intensive care facilities', explained Petr Widimský.

'Our idea to transport these patients to a tertiary centre for primary PCI, over a distance of up to 100 km, was initially met with furious criticism. Yet the positive results these four trials in three countries (the Czech Republic, Denmark, and The Netherlands) initiated a major change in the organization of acute cardiac care—regionalisation of networks, the hub and spoke system. It decreased mortality of myocardial infarction not only because PCI is more effective than thrombolysis, but also due to the fact that a much higher proportion of patients are treated with reperfusion treatment overall'.

The first PRAGUE study was presented during the Hot Line Clinical Trials session at the ESC Congress 1999 in Barcelona with the PRAGUE-2 study in the same session 3 years later in Berlin. Both were published in the *European Heart Journal*. In 2008, together with William Wijns, he founded the Stent for Life Initiative—a pan-European project (later expanded outside Europe) to implement primary PCI and networking of acute cardiac care in most European countries.

For his work in this field, Petr was awarded the ESC Gold Medal. Regarding it as the highest award in cardiology, he was extremely proud to receive the medal in 2014, as only the second Czech cardiologist after Pavel Lukl (1964) and one of very few cardiologists from Central and East Europe to have done so.

However, as he mentioned during the Award Ceremony in Barcelona: 'I do not sleep on my gold medal, but rather I continue my effort to help in the fight with acute cardiovascular diseases—from myocardial infarction I am focusing now on acute ischaemic stroke'.

He remains most proud of the first PRAGUE study. 'This study was truly pioneering, and we succeeded in completing this study despite heavy criticism of many conservative older generation cardiologists and negative views of Czech health care authorities. Furthermore, this study was completed without any financial support—thanks to the enormous enthusiasm of a young generation of Czech cardiologists, nurses, and other health care professionals, who deeply believed in what they did for the patients'.

His ongoing and future research sees the PRAGUE series of studies continuing with PRAGUE-16 looking at the feasibility and safety of direct catheter-based thrombectomy in acute ischaemic stroke performed in cardiology cath-lab; PRAGUE-17 focusing on left atrial appendage occluders vs. long-term apixaban in very high-risk patients with atrial fibrillation; and PRAGUE-18 has just completed comparison of prasugrel vs. ticagrelor in acute myocardial infarction. PRAGUE 19 aims to evaluate the safety and efficacy of the everolimus-eluting bioresorbable vascular scaffold for STEMI patients, while other research areas for Professor Widimský are in bioresorbable stents, transcatheter valve interventions, and minimally invasive cardiac surgery.

Away from medicine, much of his interest revolves around family activities, but he also enjoys mountain biking, trekking, and hiking across mountainous terrain and visiting other cold areas such as Iceland, Alaska, Canada, and Norway.



Petr Widimský relaxing below Machapuchare in Nepal

An active softball and baseball player in the past, in 1974 he founded the Medicina Praha softball and baseball club, which at one stage had two baseball, and two men's and women's softball teams. 'The most historical day of this team was in 1986 when we played a baseball game against an amateur selection of the USA players touring Europe at that time just prior the World Baseball Championship', he added.

Prof. Widimský, who is also vice-president of the Czech Society of Cardiology (2015–19), Chairman of the ESC Council on Stroke (2016–18), and Chairman of the Czech Cardiology Education Board (SOR).

When giving advice to young researchers as they set out on a path toward success within the field, he says enthusiasm is the key, and 'the ability to devote a great deal of time to studying and research.' He also recommended obtaining experience in leading institutions abroad and working under the leadership of true researchers and having a focus on research success rather than monetary gain in the formative years.

Until recently, Widimský divided his clinical and research work on a 50/50 basis but with his election as the new Dean of the Third Faculty of Medicine at the Charles University for the next 4 years, he expects a significant increase in administrative and teaching activities limiting time for clinical work and research. However, he stresses this will be continued by his co-workers: Professors Zuzana Motovska and Pavel Gregor; Associated Professors Petr Tousek, Viktor Kocka, and Pavel Osmancik; and Assistant Professors Petr Kacer, Hana Linkova, Jakub Sulzenko, Frantisek Bednar, Karol Curila, Jiri Knot and others.



Conflict of interest: none declared.

Reference

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