



MEDICOVER



DR ROBOT

A reprint of February 2019 article from *Gazeta Wyborcza* (top broadsheet newspaper in Poland) about **Dr Paweł Salwa, Head of the Urology Ward at the Medicover Wilanów Hospital in Warsaw**, who performs robotically-assisted surgery using cutting-edge surgical system called 'da Vinci'. →

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He removes prostate cancer using aerospace technology. **Doctor Paweł Salwa** says “The times when the physician played God and the patient was there to comply are over”

He is 34 years old and has a record of more than 900 complex surgeries performed, using the **da Vinci surgical system**. The story of Dr Paweł Salwa shows that if you are outstanding you should move on and go somewhere where you can get even better. And then you can come back.

He is not from a family of physicians. When I ask him about it, he smiles slightly. "Not even close. The first person to graduate from a university in my whole family was my sister. I was the second one," says the 34-year old Paweł Salwa, a urologist, **Head of the Urology Ward at the Medicover Hospital in Warsaw** and Director of the Polish Centre of Robotic Urology, formerly a long-term consultant (Ger. Oberarzt) of the Urology Clinic in Gronau, Germany (the biggest clinic of robotic-assisted surgery in Europe) and Manager of the Prostate Diagnostics and Imaging Centre in Gronau.

When Doctor Paweł Salwa, a young man with blond hair, wearing navy blue New Balance trainers, tells his age and then starts talking about all the positions and job roles he held so far, it immediately gives you an inferiority complex, especially that none of that sounds like bragging. These are pure facts.

“PAWEŁ, WE WILL WAIT FOR YOU”

He came to Warsaw to study medicine from Zielona Góra. He graduated with the highest grades of all students in his year (“Allegedly, the highest grades in the history of my department”) and at the same time studied biotechnology at the Warsaw University.

As a fifth-year student he decided to become a urologist. “The choice of a specialization is a difficult decision and I also had plenty of ideas. I came to a conclusion that I wanted to help men because their health awareness and ability to take care of their health was usually very low,” explains Dr Salwa.

What he wanted to learn i.e. performing robotic-assisted surgeries using the **cutting-edge surgical system called da Vinci** – was not possible in Poland at the time. The closest city with a robotic surgery clinic was Gronau. “We made a decision with my wife to move abroad, not to earn more but to learn more.”





In Germany, the young graduate of medicine enrolled in an unpaid internship programme. In Poland, still as a university student, Paweł Salwa received a prestigious Dr Mayzel's Medal of Honour of the Polish Academy of Sciences but no one was interested in him. In Germany, he was offered a job after one month. "I warned them that I still had to do a year-long training program in Poland and I heard from them 'Paweł, don't worry, we will wait for you,'" recalls Dr Salwa.

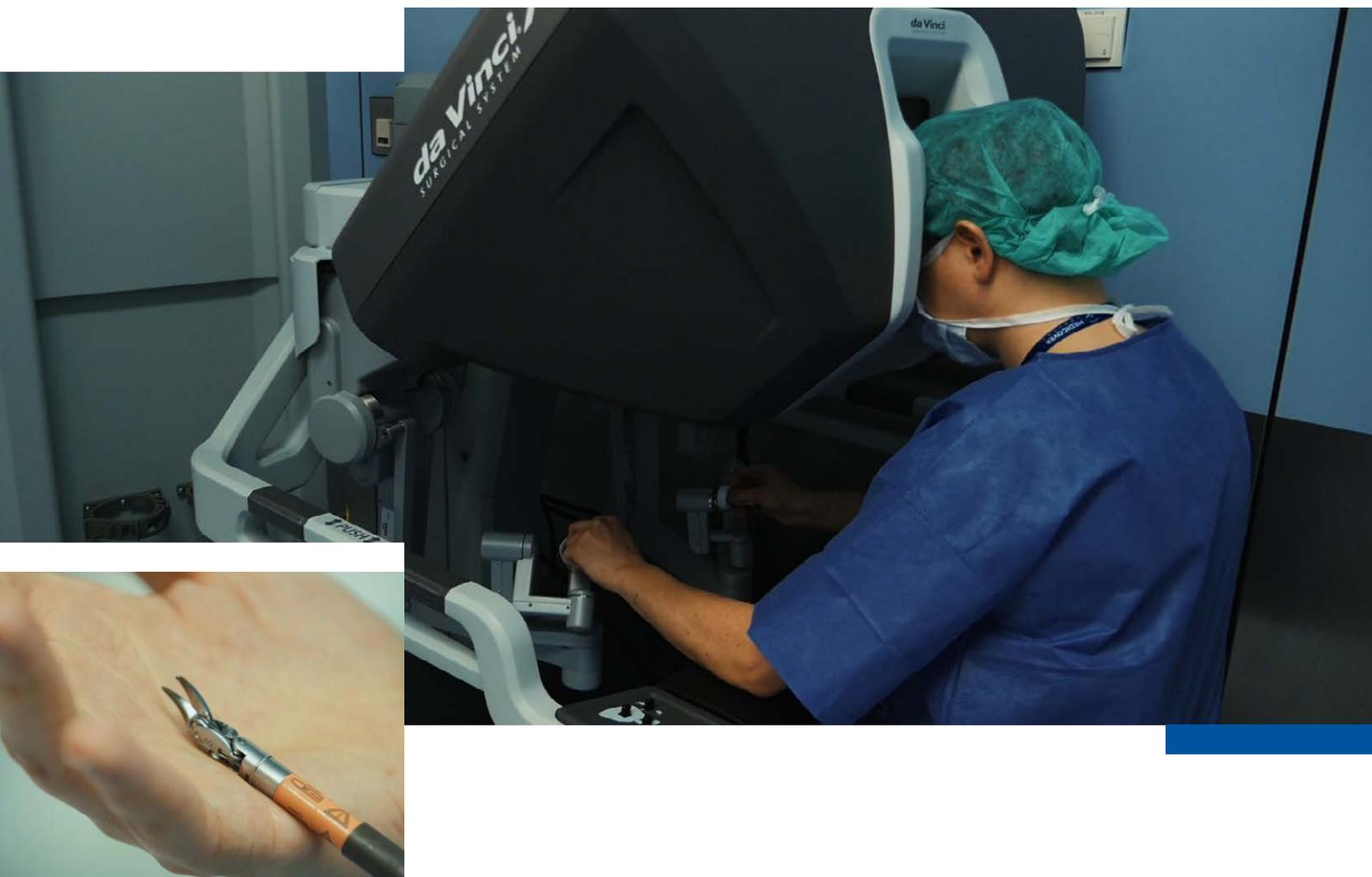
He strongly believes that medicine cannot be learned at a training course or in theory. The most important thing is practice and the master-apprentice relationship. "My master was my German boss. I quickly became his close associate because he had a fantastic approach. He did not care how old a person was and where he or she came from but only how well they worked. If you worked well, you moved up and if you worked poorly you did not advance," he explains.

The turning point in Dr. Salwa's professional career was winning the European Robotic Olympics in 2013 while working with the da Vinci system. "My boss told me at the time: If you are so talented, start doing surgeries. And that's how my adventure with robotics began," recalls Dr. Salwa.

AEROSPACE TECHNOLOGY IN THE OPERATING THEATRE

The **da Vinci surgical robot** is – as Dr. Salwa puts it – aerospace technology in the operating theatre. Something that Polish medicine has not seen to date. The word “robot” may sound frightening to patients because they may get an impression that the surgical procedure is performed by a machine. But this is not the case – da Vinci is a telemanipulator which means that the surgeon operates on the patient and the robot repeats his or her movements, using microscopic surgical instruments at a very high magnification.

There is no way the robot could do any harm to the patient. On the other hand, the robot is an almost ideal tool but without an experienced operator the result of the surgery may not be satisfactory.



Robotically-assisted surgery sounds like science-fiction and looks like science fiction. Dr Salwa takes off his shoes and sits at the console of the da Vinci system. He will be operating from a distance. The patient is lying around one meter away, on the operating table and the other part of the system, the one with robotic arms, is next to the patient. The physician puts his hands in two special attachments and moves his fingers just like when he is physically at the patient's side. The movements are very smooth.

He wears special glasses which give him high-definition vision of operative field with up to 10 times magnification. Under his feet, there are seven pedals used for manipulating the robot's arms and performing such activities as tissue cutting, supplying electric power to close small blood vessels or positioning the camera inside the patient's body. Shoes must be taken off to avoid slipping of the surgeon's footwear which could lead to unwanted movements of the instruments.



“One surgery requires minimum three hours of maximum concentration. During training, you operate even six to twelve hours and over that time you cannot think about anything else. So this is not a job for the impatient ones or for persons with short concentration span,” explains the urologist. The eye-hand-leg coordination must be exceptional. “That’s why in many renowned clinics worldwide only the young guns, surgeons aged less than 40, are trained to use the da Vinci surgical system, as they quickly develop the right skills and acquire the right habits,” says Dr Salwa.

He himself has a record of 900 surgeries using the system, of which around 750 in Germany and 150 in the Medicover Hospital in Warsaw. But the 150 surgeries occurred in less than half a year. How long does it take to master the operation of the robot? "In theory, you can learn how to use the da Vinci surgical system at a weekly training course after which you get the operator certificate. But this means only knowing how to operate the robot. My training took more than a year spent in Germany, Belgium, the United States and the UK. I carried out more than 500 steps of the surgical procedure under the supervision of mentors. I practiced each surgery stage hundreds of times and the recording of my final exam surgery was sent for evaluation to experts from all over the world. Summing up, the short da Vinci course ends with something like a driver's license while I am more like a Formula 1 driver winning the races. Research shows that the master level can be achieved not earlier than after performing 500 surgeries," he explains.

Doctor Salwa is at the moment the most experienced surgeon using the da Vinci system in Poland but that's not all. He also developed a proprietary prostatectomy method called SMART which has been registered by the Patent Office of the Republic of Poland. SMART means that this is a clever operating technique but it is also an acronym which stands for Salwa Modified Advanced Robotic Technique. "This is my own, proprietary surgical approach.



The goal was to improve the small steps of the surgical procedure. In the case of prostatectomy there are more than a dozen of such steps and if we can improve each of them by more or less 5 per cent, the final outcome for the patient is much better than without the improvements,” explains the urologist.

Better in what way? To put it very simply: the patient is free from cancer but still gets erections and can pee normally so he does not have to use diapers. **“And this is the revolution that the da Vinci system offers in experienced hands. You can extract the tumour completely while preserving the patient’s physiological and sexual functions because each millimetre of normal tissue**



saved is priceless. The procedure is also much safer for the patient compared to a conventional or laparoscopic surgery. The risk of serious complications after a da Vinci-assisted surgery is less than one percent based on my domestic experience. For instance, there are almost no haemorrhages and the patient’s blood loss during surgery is a few times lower,” claims the surgeon.

Dr Salwa says his patients fall basically into two categories: the ones for whom full recovery after the disease is critical and patients who were refused treatment by other physicians due to the very advanced stage of cancer.

“Thanks to the excellent method and the precise tool, that is the robot in the hands of an experienced surgeon, in most cases we are able to carry out even the most difficult surgeries, including salvage procedures when prostate cancer recurs in a patient previously treated with radiotherapy, HIFU or the Nanoknife,” assures the urologist.

He works hard. “Usually, we do two surgeries a day. Fourteen procedures per week would be ideal but we also have consultation days. I work also on Saturdays and Sundays to reduce the waiting lists since cancer patients cannot wait. Prostate cancer is a population disease nowadays. In West European countries it is now the most common cancer in men. Cancer diagnosis often comes unexpectedly, sometimes on Sunday when the patient cannot see a physician immediately. In such situations a good solution is to search for quality knowledge on the internet. I strongly support and recommend the Polish educational and information forum rak-prostaty.pl, the so called Gladiators. They do a great job disseminating reliable, quality knowledge completely for free. I have their T-shirt here. Should I put it on? – asks Dr Salwa.

IN GERMANY, PHYSICIANS SEE MORE PATIENTS THAN IN POLAND

“Surprising as it may be both for the readers and for my Polish colleagues, the workload of German physicians is bigger than in Poland. The number of patients in a typical hospital ward in Germany is higher than in Poland but this is possible due to a different system of work organisation and better work tools compared to Poland. In our country, physicians still have to do many non-medical jobs during the day.

It would be totally unthinkable in Germany to waste the time of a physician for writing out prescriptions or typing hospital discharge reports on a computer. These are responsibilities of assistants as the physician’s time is too precious for that.

Each good hospital manager knows that it is worthwhile to employ even three secretaries to utilise the time of physicians most efficiently. In Poland, we still have too few tools to assist the work of medical personnel, particularly in public hospitals. In the Medicover

hospital, I have very comfortable work conditions but my colleagues with whom I often talk complain a lot about the work environment standards,” says Dr Salwa.

He himself tries to transfer the best practices from Germany to Poland. “Whatever we might think about Germany, one thing is



certain: it is a well-oiled machine. And the good solutions should be adapted to our needs and transferred while leaving out the things that are not so good. For example, based on the German model, I myself do not work anywhere else outside my hospital and other physicians also have to agree to such a restriction. The reason is simple. If I am in one clinic and the only thing I have on my mind is that in one hour I have to be in another clinical, at the other end of the city, and I have twenty patients waiting for me there and five minutes to handle one patient, the ones who suffer most in such a situation are the patients. But also the physicians because the job burnout will occur sooner.

“We should bear in mind that we are ultimately responsible for the way we work. That’s why it is on us to arrange the work schedule in a way which will allow us to do our jobs the way we want it.”

He still regularly visits Germany. **“I once learned to use the da Vinci system there and today I am the teacher and I teach Germans how to use it.** But I also upgrade my skills by learning new techniques. Last week, I performed demonstration surgeries in Bavaria. Our educational exchange programmes and experience sharing schemes work very well.

FROM GERMANY TO POLAND

With his record of achievements in Gronau, Dr Salwa could have chosen to work anywhere in the world. “It’s true, we could not complain about the work conditions in Germany and had many job offers in Europe, in Arab countries or in the United States. My wife Jagoda was also doing great. By education, she is a large animal and livestock veterinarian and, in Germany, she also treated farm animals. But with time, she got to take care of patients in my clinic. She was their concierge, a guide helping them with all hospital procedures, a logistic assistant and a good spirit. Especially that in addition to German patients, we had many patients from Poland. Today we also work together, although we seldom get to see each other. Jagoda is the first contact for all patients getting in touch with the clinic. You couldn’t be in better hands,” Dr Salwa praises his wife, smiling at her with visible affection. It started as a high school romance. “Sixteen years together,” he says.

The return to Poland had been firmly agreed upon before the Salwas even left the country. “The goal was to acquire knowledge and experience, learn a different work culture and come back. That’s why we tried to maintain professional contacts with Poland all the time. And it turned out to be a good strategy since, just like with emigrants who are not greeted with open arms in the foreign country to which they move, also back home no one waits for their return, apart from the family and friends..

But there were also personal reasons. “In order to develop professionally, sometimes you have to be ready for high personal costs. Living far away from your family is a difficult experience. The two of us were lucky to be together, but Poland is the place where we feel at home. Even the kind of the sense of humour of the people around you becomes an important matter in the longer run. We also wanted our two little daughters to be able to communicate freely with their grandparents who do not speak German. Coming back to

Poland we took a high risk but we both decided it was worthwhile because we realized how much good we can do here.

Dr Salwa brought back to Poland not only a bigger family and unique skills. It was at his specific request that the hospital which employs him bought the da Vinci surgical system which costs USD 1.8 million and its maintenance costs another PLN 600,000 a year.

The SMART prostatectomy carried out by Dr Salva, using the da Vinci robot at the private Medicover Hospital is not cheap, as you can easily imagine. The cost of the complete 'all inclusive' procedure ("If in addition to cancer the patient also has hernia, I operate it without asking any questions") is approximately PLN 46,000. Despite that, the schedule of surgeries is fully booked months in advance.

"My patients are wealthy people and my dream is to make the surgery affordable to all Poles and to make it available all over Poland. I do not want robotically-assisted surgery to be a luxury service for the chosen ones but to become a widely accessible procedure. It is not an experimental therapy. In the United States, surgical robots have been a standard for more than ten years now while in Poland there are only a few systems used for the time being.

Dr Salwa's mission is also to promote health awareness in men.

"No one should be afraid of a urological examination. The main diagnostic tool used by urologists is the completely painless



ultrasound check. You can screen for prostate cancer by checking the PSA blood level which is a very simple test. And subsequent urological procedures and examinations depend on the specific needs of each patient. So, it is not a case that right after entering the urologist office you are immediately exposed to some unpleasant procedures. The subject of prostate diseases needs to be promoted because men feel embarrassed to talk about them and they are no different than any other medical problems.”

He likes his work a lot and it shows immediately. He is also very open about what he does not like: treating patients like objects by physicians playing Gods.

“The times when we were priests guarding secret knowledge are gone and it’s high time physicians understood it. Today many patients are highly aware of what they are going through and in some specific, narrow fields patients happen to know more than their doctors. I can’t understand talking to patients using a high specialist medical jargon. I could do that, too, but why should I if I want the patient to understand me as good as possible? Maybe to some people saying “to pee” instead of “to urinate” sounds childish. Let it be but I don’t mind.”

My last question to Dr Salwa is whether he happened to hear from other people that he works like a robot himself? “Not really but maybe they say so behind my back. A robot is a dehumanized device while in man to man contacts honesty is necessary. And I care a lot about the ability to be honest and sensitive to emotions because it helps patients to open up quickly. I am glad with what I have achieved so far but I think this is just a beginning because I really am a hard-working person. But I am not puffed up with the greatness of my mission to battle cancer. I am happy when I can do my job duties well, from A to Z.”

A detailed description of Dr Paweł Salwa’s proprietary surgical method can be found at <https://urologiadavinci.pl/> →

