



Doctor José María Caffarena
**SAVING
LITTLE LIVES**

OLGA SOLOVIEVA

All the doctors I have interviewed share many similarities, but the most significant is that they are all god-given doctors. Today we will be talking to one such professional: doctor José María Caffarena. The head of the cardiac center at Sant Joan de Déu Children's Hospital, Caffarena is the pediatric heart surgeon with the best results in the world.

Every year approximately 20,000 patients from around the world come to Barcelona for treatment. Our magazine decided to acquaint its readers with the world-renowned centers and international experts that have turned Barcelona into one of the most prestigious cities in the world for medical care. Over several issues our guide to the world of Catalan medicine is Olga Solovieva, General Representative of BMA, the association of Barcelona's top hospitals, and Director of Barcelona Medical Consulting, the company established in order to assist foreign patients and develop international relationships with institutions of other countries.

– Doctor, I know that your work schedule is extremely hectic, since you work 10-12 hours a day! How many pediatric heart surgeries have you performed to date?

– About 8,000 since 1991, when I started working as a cardiac surgeon. I operate on about 300 children per year.

– In order to be a great surgeon one must operate every day, just like a musician should practice their instrument daily, right?

– That's a very good question, Olga! That's right, I perform operations every day, as many as possible. The surgeon's experience does not determine the entire outcome, but it's a prerequisite for a good result. It is impossible to be a brilliant surgeon without having outstanding experience. Among heart diseases, for example, there are many similarities, but there are also many differences, even within the same disease. The more cases you deal with and solve, the more likely it is that you will make the right decision in difficult situations.

“So many children with congenital heart defects were dying in the 80s and 90s and I wanted to change that. Fortunately, now we can correct the absolute majority of heart defects

– Doctor, I know that your department primarily receives the most complex cases from all over Spain. What diseases do you deal with most often?

– The list of diseases is huge and will hardly make sense to readers. 93% of them are congenital structural heart defects, the remaining 7% are acquired diseases. First of all, we perform corrective surgery, that is, the full correction of birth defects, for a complete recovery of the heart and arteries, both anatomically and functionally. Nowadays this is achievable with many diseases. Moreover, approximately 5,000 of the operations are open-heart surgeries using extracorporeal circulation, during which the functioning of the heart and lungs are carried out by artificial blood circulation devices.

– Doctor, you are the world pioneer in many types of surgeries. . .

– Let me start by mentioning that we use all existing methods of all levels of complexity that have proved their effectiveness, such as the transposition of the great arteries (TGA) technique by Nikaidoh. We also use many other methods including one, for example, in which we have to dismantle the entire heart into separate pieces and then put it back together again like a puzzle. We were also the first in the world to perform surgeries on the anatomical correction of TGA, to operate on deep hypothermia and patients in full cardiac arrest, when we had to keep the newborn in temperature of 15 degrees and fully stop the heart;

we were the first to use the double switch technique for the radical correction of TMA.

– In other words, the highest level of mastery! But the most important thing is the results obtained, which are the best in the world in many types of surgeries. I remember the comparative results of the four best children's hospitals' cardiac surgery departments: Great Ormond Street in London, Necker in Paris and Boston Children's Hospital in the US, and your Sant Joan de Déu Children's Hospital, which consistently keeps the pace. You have the best quality indicators in the world in terms of level of complexity, survival rate, number of complications. . .

– We are really proud of our results! Since 2003, when we began performing highly difficult surgeries (all this is reflected in the statistics) the mortality rate we've registered per year is between 0.4% to 2%...these figures are better than at Great Ormond Street and Necker, and are comparable only with Boston. But our results are actually better than Boston's in

the number of diseases we treat, for example, the transposition of the great arteries and Tetralogy of Fallot... For example, with the latter we have not had a single case of death in the last ten years, while a 10% mortality rate is considered normal and the world's best centers register 1.5%-2%. We still manage to maintain 0%

mortality after more than 350 cases! Of course, this is a source of great happiness and pride for us.

– Doctor, I know that you operate on many newborns, right?

– It is widely accepted in cardiac surgery today that the sooner the defect can be treated, the sooner surgery should be performed: congenital heart defects often limit quality of life and complicate development if they are not fixed in time. That is why we try to operate in the first months after birth, which is 30% of all our patients. For example, I recently operated on little Shakhrezada, who was born in the 32th week of pregnancy, weighed 1.3 kilos (2.85 pounds) and had a severe heart defect. It was necessary to operate immediately to save her life! It turned out that it was a case of the tiniest patient in the world with such a severe defect who was successfully underwent surgery. Of course, all this requires the coordinated work of the whole team, not only of surgeons, but also of cardiologists, diagnosticians. I am lucky to have the best team in the world!

– Of course, many doctors at the top of their field work here, like Dr. Freddy Prada, Chief of Hemodynamics, Dr. Josep Brugada, who annually performs 150 heart ablations on children with the best results in the world, the legendary Chief of Fetal Surgery, Dr. Edward Gratacos, who has performed about 1,700 surgeries on fetuses in the womb. Recently, another article



On photo: Doctor José María Caffarena and Olga Solovieva, Director of BMC

appeared in “The Times” about how Dr. Gratacos performed an intrauterine operation on a baby in the 4th months of pregnancy in order to open a blocked trachea. Once, during a conversation with Dr. Gratacos, he compared himself to a pirate who gets on board a ship and operates when everything is swaying. Yes, your team is made up of legends.

– Exactly. Dr. Gratacos is the head of the Intrauterine Fetal Surgery Diagnostics Department. Fetal surgery is always impressive, but in reality, there must be a team of great experts in diagnostics in order for Dr. Gratacos to be able successfully perform intrauterine surgeries and for me to immediately operate on newborns with severe defects. And we have such a team, with outstanding experience and the ability to make the most accurate diagnosis possible at the earliest stages of fetal development. Without them the results we have wouldn’t be possible.

– Well, now we come to the most interesting topic. What allows a surgeon to achieve such outstanding results? It is clear that it is impossible without the amazing and coordinated work of the team; like Formula 1 drivers you can’t work without engineers, technicians, a copilot... but what exactly makes a surgeon a brilliant one?

– I think there are several components. Like in art... the surgeon is like a painter, sculptor or athlete... there are some abilities that people are just born with. This component exists in surgery as well. But without full commitment, endless practice and strict self-discipline you will never achieve great results. It is the combination of an innate gift and hard work.

– Yes, of course, but what exactly is that innate gift? I have two sons who want to become doctors, one of whom only wants to be a surgeon! They asked me to pose this question to you: what is the most important thing in

surgery? A clear mind, a steady hand, and the ability to make risky decisions?

– Olga, you have perfectly described the most important things... a combination of all is crucial. On one hand, it is necessary to have a bright mind able to find creative solutions, but if that mind gives an order to hands which are not able to perform it... that’s bad. It is precisely that synchronicity between the mind and the hands that makes a surgeon a good one. Besides, the ability to make decisions is also an important quality: a surgeon must be confident and brave. In that sense, the more experience you have, the more confident you are! But you won’t be successful if you don’t have a certain degree of audacity. And composure. Sometimes you suddenly have face unexpected situations. It’s important not to get lost here, but to act. Another important quality of a great surgeon is always being a leader!

– Yes, Doctor, I’ve seen this firsthand! I’ve some outstanding surgeons at work- they are all leaders! Innate leaders... some even with a bit of a “god complex”. Which is reasonable, given they hold a human life in their hands...

– Well, we have also that complex. It is necessary to understand that the whole team in the operating room –five, ten, fifteen people– should support and follow just one person, the surgeon. If you are not able to achieve that unconditional respect within your team because of the results of your work or your personality, then you shouldn’t be in surgery. But the responsibility of the leader is the highest, in our case the price we pay for mistakes is too high.

– By the way, Doctor, do you come from a long line of doctors?

– Yes, like many of my colleagues. My father was a general surgeon, and I always knew that I would be a surgeon as well.

But for a long time I was trying to decide between neurosurgery, ophthalmic surgery and cardiac surgery... in the end I chose cardiac surgery, because back then there were still many things left to be done in that field. So many children with congenital heart defects were dying in the 80s and 90s and I wanted to change that. Fortunately, now we can correct the absolute majority of heart defects, and we can correct it completely, so that the child can lead a normal life and forget that he or she once had such a defect.

– I know that you have three children. Do any of them want to become a doctor?

– My eldest is studying engineering, the second is a tennis player, and the youngest, my daughter, wants to be a doctor. Being a doctor is a calling, so it is a good sign if a child like my daughter wants to be a doctor from a young age. This is a very beautiful profession: to do good things, to be able to save human lives, all this fills you with joy and light every day. Although there is always a negative side, like when you have to say that you are unable to help...

– Doctor, do you believe in God?

– I am not a practicing Christian, I almost never go to church, but I believe in God. I think in the end it's better bet on being rather than on the end.

– What values you are trying to instill in your children?

– First of all, to be self-disciplined! Work, hard work, self-discipline...without all these you cannot realize yourself as a person nor as a professional.

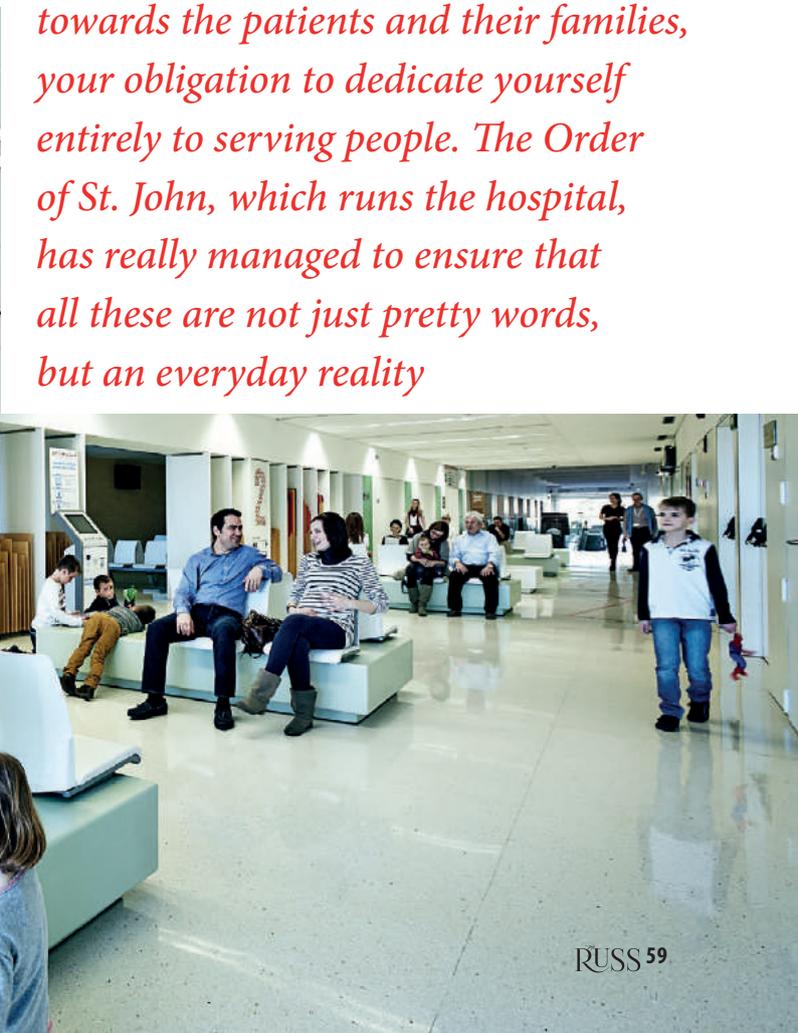
– Doctor, let us talk a bit about medicine in Barcelona. Here I have the privilege of working with you, one of the best heart surgeons in the world, with the world's leading oncologists, neurosurgeons, transplantologists... the situation in Barcelona is unique, the medical world's elite work here... and people from all around the world come here for treatment. How is this made possible?

– I think the reason is the combination of excellent medical schools, a successful healthcare system that encourages development, the application of the latest methods and investments that have been made in this area. Indeed, it is because of these reasons that the best scientific-research centers in cancer and genetics are located here, as well as some of the best hospitals in Europe. In general, medicine is one of the few areas where we can firmly state that we are not only comparable to but better than London or Paris. Not to mention that Barcelona is one of the most attractive cities for living and working, so the best specialists in the world, not just from across Spain, come here.

– But is there still a need to do an internship or practice in other countries, like the United States, in order to gain solid experience in a given specialty?

– In order to be a good specialist it is always necessary to

Even in the contract that we sign, the majority is not about the conditions of the job, like the schedule, salary, but a description of your responsibility towards the patients and their families, your obligation to dedicate yourself entirely to serving people. The Order of St. John, which runs the hospital, has really managed to ensure that all these are not just pretty words, but an everyday reality





have that type of experience. There is a need for endless study and comparisons...I have learned a lot from the best centers in Europe and the United States. Even a negative experience is useful when it teaches you what you shouldn't do. I never tie my students down, I always inspire them to travel, which they do a lot. But this does not necessarily mean that they see something better in other countries, they just see how things work differently. This always stimulates creativity.

– Doctor, by the way, you were born in Madrid, then worked in Valencia. Why did you eventually move to Barcelona and start working at Sant Joan de Déu?

– Well, for a pediatric surgeon working at Sant Joan de Déu Children's Hospital is like a football player being invited to play for Barça or Real Madrid. The best of the best work here! The hospital employs the best professionals. You just can't say no.

– Yes, according to the rankings Sant Joan de Déu is among the three best children's hospitals in the world. We have already mentioned your specialty, a field in which you are an absolute leader. The hospital built the best European team and invested huge amounts in research, technologies... But other specialties –orthopedics, neurosurgery, metabolic diseases, oncology– also have outstanding results! Thanks to what? What makes this hospital different from the others?

– Well, the policy at Sant Joan de Déu is not to be the best in Spain, but in Europe. All resources, human and financial, are focused on achieving that. But the main difference is the system of values at this hospital: maximum respect and care for patients and their families, humane support, a team of doctors by vocation whose work is often altruistic, since all experts at some point participate in charitable programs, helping children from third world countries completely free of charge. Your level of commitment is the essential quality required when you interview for a job here. Even in the contract that we sign, the majority is not about the conditions of the job, like the schedule, salary, but a description of your responsibility towards the patients and their families, your obligation to

dedicate yourself entirely to serving people. The Order of St. John, which runs the hospital, has really managed to ensure that all these are not just pretty words, but an everyday reality.

– Foreign patients always tell me about that. Everyone expects the highest skilled professionals, that's why people come here. But what really surprises them is the human support. A child is never left alone, parents are allowed to be present even during the intensive care stage. We've had cases when a doctor operated on a baby on Friday, and came to visit on Saturday and Sunday, the doctor's days off. The nurses are absolutely brilliant, the volunteers, every detail is organized so that a child is always happy... there are even dogs that are brought in to entertain children and help in rehabilitation. It is really a whole other level. Doctor, you have saved so many children. Tell me about a particularly special case for you...

– We were in Lima, Peru. I go there every year to perform free operations for very difficult cases which are specifically selected beforehand because otherwise these children will not survive... only 12 children are selected from hundreds. We were operating throughout the week, 12 hours a day, in terrible conditions, since the operating rooms lacked proper light, materials, prosthesis, we always needed to invent something. On the last day, on Friday night, I was totally exhausted, but we had managed to successfully operate on all 12 kids. I was about to go to the airport when a woman with a six-month baby in her arms approached me. The child wasn't even blue, she was already black, due to a severe case of Tetralogy of Fallot, that is, when oxygen can't reach the lungs. The woman grabbed my hand and said, "Doctor, if you leave now, my daughter will die today". And I realized that I couldn't leave. We lost our tickets, but we saved the girl! I think my flight back to Barcelona the next day was the best one of my life.

Pl. Catalunya, 1 4ª planta
08002 Barcelona
M +34 663617233
www.bmc.cat