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Prof. Uroš Ahčan, MD, PhD

Photo: Aljoša Rebolj

## Prof. Uroš Ahčan, MD, PhD, Consultant in Plastic, Reconstructive and Aesthetic Surgery

Prof. Dr. Uroš Ahčan graduated in 1995 from the Faculty of Medicine in Ljubljana. In 1999 he finished his PhD and passed the examination in plastic reconstructive and aesthetic surgery with honours (cum laude).

From 2008 onwards he has been the Head of the University medical department for plastic, reconstructive, aesthetic surgery and burns in the University Medical Centre of Ljubljana. He is a president of Slovenian association of plastic, reconstructive and aesthetic surgeons. He is a professor at the Faculty of Medicine in Ljubljana, currently teaching plastic, reconstructive and aesthetic surgery. The thorough knowledge and hard work of the Ljubljana school of plastic surgery, as well as a rich tradition, represent the basis for numerous internationally known lectures in the area of reconstructive and aesthetic surgery, hand surgery and the treatment of burns. In the last two years he has visited and lectured at Georgetown University in Washington, Mayo Clinic in Rochester, international congresses in Las Vegas, Turin, Zagreb, Beograd, Dubai, Barcelona, Prague, Copenhagen, Istanbul, and across Slovenia, and has also performed live surgery. He has more than 200 published items, such as numerous articles, papers for conferences, books and manuals. A short time ago he also published a book: When life turns upside down – all you should know about breast cancer and modern breast reconstruction.

- **At the department you are also focusing on microsurgery, hand surgery, reconstructive surgery, aesthetic surgery, treatment of burns and laser treatments. You are mostly known for breast reconstruction.**

The department has a rich history. The Ljubljana school of plastic surgery is known across the globe, especially for the achievements of Dr. Marko Godina, who is known as a world pioneer of microsurgery.

Following his example, all generations are daily focusing on microsurgery, so most of my work is directed towards the solving of complex problems and microsurgical reconstruction, especially reconstruction after breast cancer. In addition to that I am also active in other areas of plastic surgery, such as hand surgery, burns and aesthetic surgery. It is a fact that subspecializations are also required in modern plastic surgery, as diverse areas became very demanding. The knowledge must be very thorough, so the surgeons divide the areas among

themselves. One of my areas is breast surgery, especially reconstruction after breast cancer treatment and aesthetic surgery. Modern surgery must offer the best possible result, so reconstruction surgery and aesthetic surgery are closely interconnected, and each result at the end must be aesthetic, natural and in proportion with the rest of the body.

- **In Ljubljana you treat a patient with breast cancer through an interdisciplinary approach together with the oncologists. Breast reconstruction has thus become an integral part of breast treatment. How did you achieve that?**

Global research unfortunately shows that as many as 70 percent of women worldwide are not familiar with the present-day possibilities of breast reconstruction, and therefore the share of reconstruction in breast cancer treatment remains low, globally under 20 percent. In America it is slightly above 30%. In Europe, certain countries

hardly know about reconstruction, whereas in Slovenia the share reaches some 60 percent. We have achieved this by substantially raising awareness in women. Also with the assistance of the media we have succeeded in presenting to the non-professional public what modern medicine and plastic surgery can offer to modern women. The reason for the high percentage is a rich tradition and strong integration of different specialists that operate in a coordinated and devoted manner as a unified team.

- **Which method of breast reconstruction do you choose most often?**

In most cases we propose immediate reconstruction, which means that immediately after removal of the affected tissue (breast cancer) we continue with the operation and reconstruct the new breast with autologous (patient own) tissue or tissue expander and silicon implant. Most common are reconstructions

in which we use bodily tissue, of which tissue from the belly is the most common. Excessive skin and fat tissue from the belly is, with the proper vascular pedicle, transferred as a free flap to the chest. With the assistance of microsurgical intervention we suture up the small artery and vein and recreate a new, similar to previous breast. With this we achieve the best possible results, since the breast is natural and the tissue on the belly is very similar to the breast tissue. This tissue gets fatter or thinner together with the patient, it has the same bodily temperature and also becomes naturally ptotic. If the patient desires a technically simpler method with a silicon implant we respect the wishes of the patient and the reconstruction is performed with a tissue expander and an implant. We are familiar with all the techniques of breast reconstruction, so it is the patient who, after a preliminary discussion and presentation of all the possibilities, chooses the option. Patients who have already undergone breast cancer treatment and reconstruction are also generously prepared to provide assistance to fellow patients. Thus they offer an excellent psychological support to patients who are just starting to cope with the breast cancer treatment.

- **How many reconstructions per year do you perform, and what is the success rate?**

Yearly we perform approximately 150 to 180 reconstructions with bodily tissue. In total we perform between 250 and 300 breast reconstruction cases. The level of success of the Ljubljana School, where the team approach is in force, is one of the highest in the world. Operations are very reliable, standardized and much shorter than in the past. The success rate is more than 99 percent. The number of complications remains very low. In addition to that, with the most demanding operations we have reduced the operational time from 6 to 12 hours to 3 to 4 hours for unilateral reconstructions, while for bilateral reconstructions we need from 4 to 6 hours. This means that we are among the best in the world. With the last 211 patients with microsurgical operations there have been no flap-reconstruction failures or significant complications.

- **So you can compare yourself with other European or global centres in the field?**

Of course we can. This is certainly supported by the numerous invitations and lectures at congresses abroad that I regularly visit. I also regularly lecture at international congresses in numerous countries, and renowned institutions where a great interest is shown in our work and results.

- **In 2011 you presented a new way of performing breast reconstruction, namely reconstruction with the assistance of a 3-D mould. This method was upgraded with the assistance of other Slovenian experts.**

This was my innovative idea. We joined together with the Faculty of Mechanical Engineering and prepared the programme together. With a single operation we wanted to create a breast that would be comparable to a healthy breast and would also have a proper symmetry in relation to the rest of the body. We reached a conclusion that with women who have had a mastectomy and have another appropriate breast, the easiest way to reach the same shape and size of the breast is to first make a 3-D model of a healthy breast. Before the operation we perform a laser imaging of the healthy breast, and with the assistance of a proper computer program make a computer 3-D model of the healthy breast, so we simply make in a mirror image and then design a 3-D model or a replica of the healthy breast. The mould that is a three-dimensional copy of the adjacent healthy breast is used during the operation to design the tissue in the new breast in a faster, more reliable and more exact manner. The 3-D model enables faster performance and greater accuracy with less experienced surgeons, but it also ensures a very good symmetry of both breasts with only one operation. This method is especially useful with delayed reconstructions when we have no data regarding the weight of the removed breast, with altered anatomy conditions in the chest area; in short with the most difficult conditions for breast reconstruction.

- **The 3-D mould idea has also been presented in other parts of the world. What were the reactions?**

We received numerous invitations from across the globe. I gave lectures at the Mayo Clinic in Rochester, at Georgetown University in USA, in Barcelona, Dubai, Istanbul and Italy, and at numerous congresses at home and abroad. The lectures were received with great approval.

- **What can we expect in the future in the field of breast reconstruction?**

Medicine is moving towards the area of genetics and the cellular level. In the field of breast reconstruction in the last few years the method of lipofilling, i.e. injecting bodily fat of the patient with an addition of stem cells, has been very popular. I personally think that in this area there aren't great reasons for excitement, as there still remains the problem of unpredictable fat reabsorption and the need for numerous, though not

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demanding, procedures; therefore I still believe that the main progress in the field of breast reconstruction is in microsurgical reconstruction with two teams, short and reliable operations with good results in one single operation. We are unfortunately still a long way from a new breast that would simply grow in a laboratory.

First of all, our mission is to help as many women possible everywhere around the world and not only the chosen ones in individual advanced centres of the world. All women deserve equal treatment and physical integrity. A woman without a breast is miserable, which makes her whole family unhappy. An unhappy world is a sad world, so our common duty is to help and create as many appropriate cancer-healing and breast reconstruction centres as possible, and to facilitate a multi-disciplinary approach and best practice.

- **You are a top expert in your field. There are many doors open for you abroad. Were you thinking of moving?**

Such thoughts do occur often, as I constantly wish for new challenges and even better results. I would also like to help women around the world where they don't have such possibilities at the moment. It is a fact that, though, that Slovenia is a beautiful country with an extraordinary potential among young educated people, full of life energy, new and daring ideas and passion for work. Perhaps we will succeed in connecting these people into creative teams that will be able to implement their mission at home. If that isn't possible and there are no other options, a departure abroad is a real possibility. My work is my life. There are only a few minutes a day when my thoughts are not with surgery, medicine, research or patients. This enriches me, fills me with contagious enthusiasm and joy, and therefore a potential change in environment would only be a change of scenery; the show would remain the same, though.

- **You daily encounter different patients with different injuries. What represents success for you in the area of surgery? Do you remember, perhaps, any special case?**

Surgeons are part of many sad stories to which we add a happy ending. In the operating theatre we perhaps act sternly, professionally and without emotions, but in truth numerous stories that we carry with us remain a part of our lives. For instance, a 6-year old boy with cut-off fingers who two years after the operation sent us a picture from a competition of accordion players where he won 2nd place. A mountain climber on

whom we performed microsurgical reconstruction of a foot with free transfer of muscles sent a postcard from Mount Everest a few years after the procedure. Quite often I think of a young woman from Sarajevo on whom we reconstructed, in a humanitarian action, a breast after cancer treatment. Her words of gratitude in a letter moved our hearts. There are many thankyou letters, drawings made by children and photos that have a far greater significance than numbers in your bank account. And this is what gives us additional energy, the will and courage to continue.

- **A while ago you published a book: When life turns upside down. In it you included detailed information on everything that we need to know on cancer and breast reconstruction. Why did you decided to write such a book?**

Breast cancer is the most common form of cancer among women. In the so-called developed world every 8th to 10th woman encounters such a problem. A woman confronted with such a diagnosis is scared, desperate and is seeking proper information. When she enters "breast cancer" into a search engine she receives more than 200 million hits. She finds herself at the information garbage dump, and is even more frightened. Therefore I decided to write a book together with my colleagues; a modern book that would include all the correct professional information, a picturesque combination of history, art and the possibilities of modern medicine, and confessions of patients who were ready to share their stories and their bodies, personal view and optimism. Today people aspire towards perfection, wholeness of body, freedom and the pleasures of life. Everyone is the same. Everyone is important. A world without women is empty, and a world without happy and content women is a sad world. The book is intended for both the professional and non-professional public, for a better world.

- **What is your best personal achievement?**

I think your achievements should be measured by others. Personally I am happy, though, that with all the daily impulses and psychophysical strains the soul and the body are coordinated, that I can preserve my inner peace and harmony. It is important that despite your professional work and career you preserve a good contact with your family and children, as they are the most valuable possessions in your life, besides good memories.