Interview with Prof. Paolo Miccoli

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Yigit Turk (YT): Hello everyone. I am Yigit Turk From Ege University, Izmir and I am with Prof. Paolo Miccoli as a part of 'Bridging Generations' Project of ESES' Research Team. Every endocrine surgeon knows him very well according to his publications and works. In this short interview series, we will meet the doyens of Endocrine Surgery. First, I would like to thank Prof. Miccoli for accepting our humble invitation and ESES's Research team for giving me this opportunity.

Yes, Professor, Welcome to our zoom interview and thank you again for your kindness. How are you?

Paolo Miccoli (PM): I am fine and very proud to be here with you because I think that this idea is really brisk and young endocrine surgeons will take a lot of benefits from this idea.

YT: If you are ready, we can start the interview. How did you decide to continue your career as an endocrine surgeon? What or who got you interested in the field of endocrine surgery?

PM: This is a good point to raise because when I graduated very far away in 1972, I started my practice in general surgery because practically only general surgery existed. No endocrine, just a few urology, no oncological surgery existed. Only general surgery was. The fact is that there was a very strong group of endocrinologists led by Prof. Aldo Pinchera, well known at the world level in that field and passed away ten years ago, but at that time he was very brilliant and active. They wanted to be reinforced from our site for all the research activity in endocrinology, but particularly in thyroidology. On the other hand, they wanted to refer more and more patients to surgery because, in the big jar of general surgery, the space and time for performing thyroidectomy operations was quite limited. So they proposed me to devote myself to this branch of surgery. I accepted having seen they were really very strong in researching. And so, I started increasing and increasing every day a little bit more thyroid surgery. I have to say that, parathyroid surgery almost did not exist in those years in Italy and was very limited in Europe I guess. Only some centers in Germany, in France, and more in the Scandinavian area, but not so many, even in the USA. The case series were quite limited. But once we started to search for hypoparathyroidism well, the very end off we found it, and then we reached the numbers everybody knows.

YT: In the beginning, which difficulties did you face up?

PM: Well, the most difficult point of all was to convince my master. At that time thyroid surgery probably had a great future. For him basically, only the digestive surgery was the general surgery, so we performed a lot of colorectal surgery, and gastric surgery. Please do remember that time for example gastric surgery was made represented by peptic ulcers. He was not fully convinced. He thought thyroid surgery could be faced quite easily by performing subtotal thyroidectomies not to jeopardize recurrent laryngeal nerve (RLN), then once I started to become more responsible for technique. I started to prepare and dissect RLN and so on, this was my first difficulty, but then I was able to sort it out. I have to thank all my masters that allowed me to devote myself to endocrine surgery.

YT: As far as I know, officially, there is no endocrine surgery subspecialization in Italy like in many European countries. Do you think endocrine surgery should officially be a subspecialty?

PM: Well absolutely, my answer is yes. You are right; in Italy, there is no specialization, and I think subspecialization would be necessary. For example, consider that we have well-known journal 'Updates in Surgery,' where many Turkish surgeons publish their papers that even the editorial board is devoted to endocrine surgery. So the sensitivity of the surgical group in Italy is that endocrine surgery has the dignity of being a subspecialty. But this is the problem that should be laid on the ministry level, and I think that we are operating absolutely at this level and probably we will recognize such in a way possibility of giving the title 'endocrine surgeon.'

YT: Yes, I think so too. I even believe that endocrine surgery societies should take the lead in this regard. It's not hard to guess that you believe in innovation in surgery, so what are your thoughts on 'remote-access thyroidectomies', especially TOETVA and BABA thyroidectomy, which have become popular in the last decade?

PM: I think there is a strong difference between these two techniques. First of all, BABA with a lot of different variates, (and we must admit that there are several ways and several approaches) is now more than ten years old. I think when you say 'transoral,' you probably assume at least you have your mind that is the Anuwong's procedure. Because I think that we can completely cancel all the other variants of transoral thyroidectomy, so transoral thyroidectomy in the version of Anuwong's transvestibulary is a nice operation. It can be considered a NOTES operation. Because actually, it is through a natural orifice, and the operation which is technically demanding but also logistically demanding because it involves longer operative time, longer hospital stay, and the patient can't be fed after the operation. I think that is a surgery which should be reserved for more benign diseases than malignant diseases which makes neuromonitoring more complicated for example for MIVAT. It is a complex but nice operation. In terms of the breast approach, I think that it is a very nice approach which has gained enormous popularity in eastern countries but not in western countries. I have to say that in Europe and North America this approach is

not considered particularly available. Probably the cosmetic feeling that women in the Far East and women in the West are completely different. For example, sometimes breast approach can impact the possibility of breast plastic surgery, and a scar on the breast is considered to be unaesthetic in the West, not in the East. Transverse incision of the neck is considered not only unaesthetic but in some countries even let us say bad omen is considered to be a sign of negativity. And I finish with one consideration, every country has to choose its own approach because eastern surgeons are different, eastern patients are different, and so it is for the West. Every geographic area has to choose its own way.

YT: Yes I agree with you and the effects of technological developments on surgery are undeniable, and in the endocrine surgery field, we can see clear examples of this, such as intraoperative neuromonitoring and the use of autofluorescence. So, what are your thoughts on how far this issue can go?

PM: I think that basically the neuromonitoring, and I want to stress that continuous neuromonitoring should be considered the state of the art of this technology has gained quite large popularity and can now be considered officially as a tool to be used in the operation room. Maybe not in all cases. For example in Italy, in our unit in Pisa, with more than 3000 thyroidectomies per year, it would be very costly to use it for every operation this neuromonitoring but basically, I think that neuromonitoring conquered a such number of endocrine surgeons that it can't be discussed any further. For autofluorescence (AF), I think that I am particularly fond of AF but much more in thyroid surgery than in parathyroid surgery. I think this is not a paradox. I mean the future of AF has an enormous field of expansion because it has the ability to measure the vitality of the parathyroid glands after thyroid surgery and has a great feature in particularly those countries where this surgery is performed on an outpatient basis. I mean, having the possibility of seeing at the end of the operation even if the parathyroids are correctly fed, and blood supply can guarantee that your patient had any hypoparathyroidism and hypocalcemia. And so you can discharge the patient immediately after the surgery.

YT: Finally, what are your recommendations to young surgeons who want to continue their career in endocrine surgery?

PM: First of all, I recommend visiting units where a large amount of thyroid surgery or adrenal surgery is performed. I think it is important to understand the organization of the system to guarantee this large amount of surgery to be performed. Second, get strong in endocrinology and physiopathology. No doubt that endocrine surgery has substantial differences with respect to other surgeries. I think that an endocrine surgeon has to know very well all the parts of endocrinology, all the parts of physiopathology, and all the metabolic effects of our surgery. The problems link for example with substitutive therapy after thyroidectomy, with the possibility of hypoparathyroidism or recurrence after parathyroidectomy, all the potentialities of

partial adrenalectomies, and so on. This needs an endocrinological and physiopathological approach. So do study.

YT: Thanks a lot. Here is the end of our interview. Thank you for your fruitful and lovely conversation. I wish you a happy and healthy new year. Hope to meet you in person at the next ESES meeting sir.

PM: I hope so, I will be delighted. My best wishes for 2023 which will be a great year for you. I am sure. Bye

YT: Bye bye