the DISEASE THEY CALL FAT

SURGEON
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Transcript of Surgeon Video Episode 1a

SURGEON

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Finding New Treatments for Lipedema

Dr. Smith: Liposuction is an integral tool of what we do. We use it for cancer patients, for fat grafting. We use it to thin out tissues that we transfer for reconstructions. We do a lot of stuff with liposuction outside of just liposuction for cosmetic purposes. It's a tool.

Obviously lipedema is also within that realm, patients who are having symptoms, patients who have lipodystrophies, or fat storage disorders, have changes secondary to certain drugs that they take. They all benefit from liposuction. It's a useful tool.

Catherine: How did you go from baseball to plastic surgery?

Dr. Smith: I think baseball to medicine was sort of the initial step. Just two different aspects of me that I was equally interested in. One was sports, which I love. I've always been very active in sports, played baseball through college, and through my sports, had some injuries and interactions with doctors, and thinking about things that I liked to do with science. Medicine seemed like an initial attraction for me in terms of a pursuit outside of sports.

Initially when I came into practice, my final training was as a craniofacial surgeon, pediatric surgeon. But along that path, I had trained in cancer surgery because I was interested in being able to offer all these treatments to children. But ultimately, the cancer program sort of blossomed here, and I became much more involved in cancer surgery.

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With that, I saw a lot of patients with lymphedema. I had an interest in that since I was a fellow at M. D. Anderson. And then lipedema came out of that because many patients with lipedema end up seeing lymphedema therapists or seeing us. And so we were aware of it but it was sort of a peripheral understanding.

The fat metabolism component in lymphedema comes after the swelling, and the fat deposition that we see. And it's vice versa in lipedema. And they both may have an inflammatory component. There's probably some sort of pathways that are interrelated between the two entities, and we wanted to investigate that more.

And so it's been a circuitous route to come here, starting with baseball. But I will say baseball and sports in general, as a surgeon, have been, I think, very helpful. They really serve as a foundation to develop discipline, commitment, perseverance, acceptance, or learning to deal with failure and not accepting failure, but coming back and trying to rethink things and find a better way to come back and succeed.

With lymphedema that's sort of what happened. New imaging technology came around, some new techniques, and with a foundation and a desire to really look at this entity, we were able to come back and really start building an approach that we think offers some improvement over what was available in the past. And I think with lipedema, this is a similar problem that has been known for decades, back in the '40s. But nobody really took control of it or owned it, and really start saying, "How are we going to change this? How are we going to treat it? How are we going to learn more about it?"

Liposuction and Compression

It's just this observation that was a diagnosis, but most patients are treated with compression, and some get some relief. But I'd say it's even less successful than compression for lymphedema. I think compression for lipedema may provide some relief, but certainly doesn't address that problem, and so there's room for growth. And I think compression is a component of the treatment that we offer, and that we're looking at with liposuction. And we still need compression, but there's got to be some other way to treat this, and if you bring enough people together who are motivated to do it, I think we're going to find out.

We know that lower extremity liposuction has certain risks that are more than other areas for blood clots and for prolonged swelling, and things of that nature that we don't want to have as a sequel. It's very easy for you just to look at someone and say, "Okay, we'll book you for liposuction," thinking it's fairly innocuous, but there are problems that can exist. Swelling can be secondary to the lipedema, but it can also be secondary to lymphedema, which can be exacerbated or require lifelong compression after liposuction.

Venous insufficiency, you can call it, can cause swelling in the legs. Venous insufficiency can also lead to a lot of bleeding at the time of surgery if not recognized ahead of time. Congestive heart failure. There are a multitude of things that can lead to swelling in the lower extremities that can't just immediately be assumed secondary to lipedema.

The only pitfall is when you just look at it as a procedure in a single body part, and you're saying, "Well, we're doing this on that body part." You've got to remember a patient attached to that body part that could be at risk of complications.

> **It's perhaps more important to understand what you're doing and have a thoughtful approach that contains and minimizes the risks. And I will say the pre-care and aftercare was very thoughtful. And I think that is perhaps the most important element.**

So during our trip to Germany, we met with Dr. Sattler, Dr. Rapprich, and Dr. Stutz, and what became very evident was that each had thought about what they were doing every extensively. They were not just going at it like another liposuction patient. There was a thoughtful approach. But interestingly, their techniques varied, and even the timing of their techniques, how they would break down the individual procedures, varied.

What we're trying to understand is: is there perhaps one way that's a little better, or offers a certain advantage in a particular patient who's had certain risks that another one might not? In certain areas perhaps one technique will work better. We don't know.

But the thing that was evident is that it's perhaps more important to understand what you're doing and have a thoughtful approach that contains and minimizes the risks. And I will say the pre-care and aftercare was very thoughtful. And I think that is perhaps the most important element. The use of compression and anticoagulant therapy and early ambulation, and these sort of things that are really outside of the surgical procedure itself, are probably as important if not more so, in having a good outcome.

Many surgeons do liposuction, but if you're taking care of a specific subgroup that are at higher risk, you have to be well aware of those risks and how to mitigate them. And that's what I think was one of the main take home messages of our trip. It's good to have a system. And so you take a system that's worked in its entirety and you start with that, and then you adjust based on your experiences, the patient population, and new information.

I think each of these individuals has developed a system over the course of years that is safe and effective, and it works in their hands. And that's true in many areas of surgery. And it was good to see the variety, and to hear the insights and the commonalities, as well as the differences from each of the surgeons.

About Mark L. Smith, MD, FACS

Dr. Mark L. Smith is Chief of Plastic Surgery at Mount Sinai Beth Israel Medical Center, Director of the Friedman Center for Lymphedema Research & Treatment and Co-Director of the Lipedema Project. His expertise includes cancer, lymphatic surgery, and lymph sparing liposuction for lipedema. He is trained in both microsurgery and craniofacial surgery.

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