- Hi everyone. My name is Ross Milner and I'm a vascular surgeon at The University of Chicago. My academic ranks are professor of surgery and I serve as co-director for our centre for Iliac diseases here. Today I'll be discussing the role of Iliac Branch Devices, and the success and durability of EVAR using Iliac Branch Devices, as well as some of the data that's available on quality of life associated with this technique for repair.

Options during EVAR to achieve a durable seal

The main options for repair for a durable seal in the Iliac System are several. In the past, before there was Iliac Branch Technology available, we sometimes used flared limbs to be able to treat Iliac anatomy. At times we needed to embolize an Internal Iliac Artery and then plant it in the external, and there was other off-label uses that have been published that have shown some success. But now that we have Iliac Branch Devices available, if possible, that is usually the solution that I prefer, because it does allow a durable seal, but also preservation of the Internal Iliac Artery.

Factors informing clinical descision making

I think there's several factors that inform our clinical decision-making for patients. And there has been some reasonably good publications about this, and also some very good roundtables and discussions regarding when to select the Iliac Branch Devices and who are the appropriate patients. I mean, typically in my practice, I would say are younger patients that tend to be more active, that were worried about sexual function. Those are the patients that we do work in a more aggressive fashion, to be able to preserve the Internal Iliac Artery. For some of our older patients who maybe aren't as mobile and the preservation of the artery is not worth the potential added part of the procedure, we don't. And I think also there's anatomic requirements. Sometimes depending on the device that's available, and in the United States we only have one FDA-approved device. You're not able to make those patients anatomically work for the given restrictions of the device. In many cases we can do additional techniques to make it possible, but really when I look at patients and make a decision about my treatment paradigm for Iliac Aneurysmal Disease is, are they physiologically the right, sort of person to consider for this approach? And are they anatomically appropriate as well? And we really make that decision on an individualised basis.

Latest evidence

So there's a fair bit of evidence from both United States literature, as well as outside the United States literature because of the different devices that are available, on the value of preserving Internal Iliac Arteries. It does seem to improve the outcome of Iliac Aneurysmal Disease, as well as quality of life in terms of people's claudication symptoms and sexual function as well. We actually have looked using the GREAT registry, which I'm one of the co-national PI's for. Looking at four year outcomes with Iliac Branch Devices and comparing that to flared limbs, as well as to embolization and then landing in the External Iliac Artery, we're actually currently putting together all that data, hopefully for a manuscript submission, but we see excellent aneurysm outcomes in terms of regression of the SAC related to the use of Iliac Branch Devices when appropriate. And as well, when we look at patients in terms of quality of life, we have seen a nice outcome difference with quality of life questionnaires that are done for patients that have been treated with an Iliac Branch Device. The clinical trial in the United States shows the same, as well as other evidence from other devices that are used, other than the core device outside of the US.

Take-home Messages

Yeah, my take home message for any Iliac Aneurysmal Disease, any time we're determining whether or not to preserve an Internal Iliac Artery, is to preserve when you can. I think the data in terms of aneurysm outcomes supports this. I think the quality of life data supports this. And I think as you talk to a patient, look at their overall lifespan, look at their overall risk, and make an individualised decision for what's the best approach, if someone is active and anatomically appropriate, we tend to use this device. And as well, if we're going to get a better result from the aneurysm care overall, we tend to use this device. So I think, in summary, my take home message is the devices are safe. They work well, and we use them whenever we can to preserve Internal Iliac Artery flow.