ASX ANNOUNCEMENT/MEDIA RELEASE
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# AROA BIOSURGERY'S MYRIAD MATRIX™ RECEIVES VALIDATION FOR RECONSTRUCTION OF TISSUES AFFECTED BY PILONIDAL SINUS DISEASE

**Highlights**

- AROA's Myriad Matrix™ is further validated in a clinical study and peer-reviewed publication in Journal of Wound Care.
- Study of six patients shows 100% success rates from use of Myriad Matrix™ as an implant during surgical reconstruction of soft tissues affected by Pilonidal Sinus Disease (PSD).
- All patients healed well with no major complications reported, even when used in contaminated fields.
- PSD affects around 70,000 patients a year in the United States and can have recurrence rate as high as 40% using existing surgical techniques.[1]

Soft tissue regeneration company Aroa Biosurgery Limited (ASX:ARX, 'AROA or the 'Company') has gained further clinical evidence for the efficacy of Myriad Matrix™ in the surgical reconstruction of complex wounds caused by recurrent and chronic Pilonidal Sinus Disease (PSD).

The findings come in a new study published in the July 2021 edition of leading peer-reviewed scientific journal, Journal of Wound Care, official journal of the European Wound Management Association (EWMA) and World Union of Wound Healing Societies (WUWHS).

The study titled "*Surgical Reconstruction of Pilonidal Sinus Disease with Concomitant Extracellular Matrix Graft Placement*" was led by plastic surgeon Dr. Abigail Chaffin and colleagues from Tulane University, New Orleans.

It saw six patients undergo surgical reconstruction to treat chronic PSD using a Myriad Matrix™ device as an implant under an advanced soft tissue flap. Only one minor postoperative wound complication was observed that went on to resolve without requiring any additional surgical intervention.

PSD is a chronic inflammatory disease affecting the soft tissue of the buttock cleft resulting in long-term non-healing wounds that are hard to heal and challenging for clinicians to treat. When lesions become infected, standard wound care may not be effective and surgical reconstruction may be seen as a last resort.

Due to high recurrence rates and postoperative complications, a more complex surgery involving a flap reconstruction may be required. Surgical reconstruction of PSD lesions typically uses a tissue flap that is 'freed' from the surrounding tissue, then advanced over the wound to provide immediate closure. However, this approach is often compromised by the poor tissue quality that can lead to post-operative surgical complications (e.g. dehiscence - 'tissue breakdown', - infection, seroma, or recurrence). The new study suggests Myriad Matrix™ can be effectively used to reduce these common post-surgical complications.



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The study is online at https://www.magonlinelibrary.com/doi/full/10.12968/jowc.2021.30.Sup7.S28.

Dr Chaffin, Associate Professor of Surgery and Program Director of the Tulane University/Ochsner Clinic Plastic Surgery Residency Program said all patients healed well with no major complication reported, even though the procedure involved contaminated tissues.

"The study confirmed our hypothesis that the use of a Myriad Matrix™ graft placed under the tissue flap may reduce surgical complications by reducing tissue inflammation and surgical dead space under the flap, therefore reducing the likelihood of fluid accumulation and seroma formation. These devices are fabricated from AROA ECM™ which is known to modulate destructive tissue proteases and rapidly integrate into the wound base to provide healthy well vascularized tissue," Dr Chaffin says.

AROA's Vice President of Research and Clinical Development, Dr Barnaby May said the study findings build on a growing number of publications that shows Myriad Matrix™ can be used successfully under a tissue flap to reduce surgical complications in the reconstruction of challenging inflammatory wounds.

"There is a high level of patient need around these procedures. Simple incision and drainage procedures have a recurrence rate of up to 40% for this condition which affects around 70,000 patients in the United States each year[1]," Dr May said.

Myriad Matrix™ is an extracellular matrix (ECM) graft design for soft tissue reconstruction and complex wounds and is composed of AROA ECM™ technology which has been shown in pre-clinical studies to include over 150 different components known to aid wound repair, stimulate blood vessel formation and attract stems cells. Myriad Matrix™ is indicated for both dermal reconstruction, as well as implantation and Myriad™ has a growing body of clinical evidence demonstrating its efficacy in the surgical treatment of the related inflammatory skin condition, hidradenitis suppurativa and for complex chronic wounds, including pressure injuries.

AROA has five commercial products approved for sale in the US based on its ECM technology, which has been used in more than four million procedures targeting chronic wounds, hernia, soft tissue and breast reconstruction. AROA has regulatory clearance in more than 40 countries.

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**Authorised on behalf of the Aroa Biosurgery Board of Directors by Brian Ward, CEO.**

**About Aroa Biosurgery:**
Aroa Biosurgery is a soft-tissue regeneration company committed to 'unlocking regenerative healing for everybody'. We develop, manufacture, sell and distribute medical and surgical products to improve healing in complex wounds and soft tissue reconstruction. Our products are developed from a proprietary AROA ECM™ technology platform, a novel extracellular matrix biomaterial derived from ovine (sheep) forestomach. AROA's products have been used in more than four million procedures to date, with distribution into our key market of the United States via our direct sales force and our partner TELA Bio. Founded in 2008, AROA is headquartered in Auckland, New Zealand and is listed on the Australian Securities Exchange (ASX:ARX). www.aroabio.com/

[1] Fitzpatrick EB, Chesley PM, Oguntoye MO, Maykel JA, Johnson EK, Steele SR. Pilonidal disease in a military population: how far have we really come? *Am J Surg*. Jun 2014;207(6):907-14. doi:10.1016/j.amjsurg.2013.07.038


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