



SHOWCASING SVT PIONEERS OF 2023

ARRHYTHMIA ALLIANCE HEALTHCARE PIONEERS REPORT

www.SVTpioneers.org



MISSION

Arrhythmia Alliance (A-A)— working together to improve the diagnosis, treatment, and quality of life for all those affected by arrhythmias.

A-A is a coalition of charities, patient groups, patients, caregivers, healthcare professionals, medical organizations and allied professionals. Although these groups remain independent, they work together under the A-A umbrella to promote timely and effective diagnosis and treatment of arrhythmias.

A-A provides support, information, education, and awareness to all those affected by or involved in the care of cardiac arrhythmias.

FOREWARD

Supraventricular tachycardia (SVT) is a dysrhythmia originating at or above the atrioventricular (AV) node and is defined by a narrow complex (QRS <120 milliseconds) at a rate >100 beats per minute (bpm). The incidence of SVT is approximately 35 cases per 100,000 patients with a prevalence of 2.25 cases per 1,000 in the general population, with a female predominance of 2:1 across all age groups.

The diagnosis of SVT can be difficult given the episodic nature of the condition — i.e., the need to record an ECG when an event occurs. Another challenge is that while medications (such as betablockers) and interventions (such as ablation) are available to reduce the frequency and duration of symptoms, people with SVT may continue to have episodes. Additionally, because of finding the side-effects intolerable, some patients discontinue taking medication.

To help address these challenges, Arrhythmia Alliance publishes its Healthcare

Pioneers Report Showcasing Best Practice in SVT. The aim of the report is to provide case studies to inspire centers around the world to improve care and quality of life for people with SVT.

Arrhythmia Alliance is proud to announce winners for 2023. The first-place winner developed a program to facilitate SVT diagnosis in children by loaning wearable ECG monitoring devices including plates and watches for up to 6 months at no cost. This report also highlights a number of other novel programs including mobile app clinics, nurse-led pathways, novel technologies for mapping SVTs, fluoroscopy free ablation procedures, and a 7-day ECG recording system.

Arrhythmia Alliance congratulates and acknowledges these centers of excellence for their examples of innovative work in managing SVT, for more information please visit www.heartrhythmalliance.org



Trudie Lobban MBE
Founder and CEO,
Arrhythmia Alliance



Hugh Calkins, MD
Medical Director
& Board Member,
Arrhythmia Alliance

- 5** | TRANSFORMING AMBULATORY RHYTHM MONITORING IN CHILDREN: A CITIZEN AND NHS INITIATIVE **1ST PLACE WINNER**
- 6** | MOBILE APP CLINICS: THE FUTURE **JOINT 2ND PLACE**
- 7** | END-TO-END ARRHYTHMIA NURSE SPECIALIST-LED PATHWAY FOR SVT DIAGNOSIS, ASSESSMENT AND MANAGEMENT **JOINT 2ND PLACE**
- 8** | NOVEL ULTRA-HIGH DENSITY MAPPING AND ABLATION TECHNIQUE FOR AV NODAL RE-ENTRANT TACHYCARDIA
- 9** | PAEDIATRIC NURSE-LED SVT CLINIC
- 10** | THE OUTER SURFACES OF THE ATRIA, A QUEST TO FULLY UNDERSTAND WHAT DRIVES ATRIAL FIBRILLATION AND HOW BEST TO TREAT IT USING THE FULL PICTURE
- 11** | BENEFITS OF A DECAPOLAR CATHETER FOR FLUOROSCOPY FREE SUPRAVENTRICULAR TACHYCARDIA ABLATIONS
- 13** | CARDIAC MONITORING SOLUTION, MAWI, TO DETECT ARRHYTHMIAS THAT SINGLE ECGS, OR 24-HOUR MONITORING COULD MISS

TRANSFORMING AMBULATORY RHYTHM MONITORING IN CHILDREN: A CITIZEN AND NHS INITIATIVE



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University Hospital of Wales, Cardiff and Vale University Health Board, Wales, UK



DEFINITION OF PROBLEM

Ambulatory ECG monitoring devices could not be given to children suffering from supraventricular arrhythmias during the COVID-19 pandemic. This could have led to profound consequences in the diagnosis and management of rhythm problems in children.

METHODS

We the professionals and citizens felt compelled to develop an alternative ambulatory ECG monitoring service for children in South Wales. Revenues raised were used to acquire FDA approved wearable ECG plates and watches. After the pilot project, each seven district general hospitals in Wales were equipped with wearable ECG devices. Robust clinical governance, safety and quality monitoring principles were defined. The devices could be loaned for up to 6 months which increased chances of ECG to capture the symptoms. Compared to Holter which can only be fitted for a maximum 2 weeks with an exceptionally low arrhythmia capture rate, 10-20%. Parents sent recorded ECGs via a dedicated email to a specialist nurse for prompt interpretation of ECGs and instant advice. Service efficacy was audited constantly, the results were implemented to maintain robust safety and clinical governance standards. Stakeholders were briefed frequently on the efficacy of the service; support of health boards was obtained.

RESULTS

Children loved the equipment and found them less evasive and embarrassing with 100% uptake. Efficacy of service delivery was evident in the absence of delay between transmission of ECGs recorded during symptoms and clinician's advice being relayed back to the parents, in contrast to standard Holter which require specific equipment to analyse the rhythm and longer time to report back for action. Patients' symptoms were captured in all cases, allowing clinicians to discharge >95% of patients with no arrhythmic cause. Patients with arrhythmia were identified much more effectively, appropriate treatment was initiated earlier than it would have been with traditional methods. There was no additional staffing or equipment cost to NHS and savings for purchasing new expensive Holter recorders were avoided which could amount to tens of thousands of pounds. Patient feedback, user satisfaction comments were excellent.

CONCLUSION

This service model proved that NHS needs to include parents (of paediatric patients) in service design and development for better outcomes and more effective use of finite resources. Wearable ECG monitoring devices are effective for arrhythmia detection at lower cost and with more patient acceptance and should be utilized in NHS widely and routinely. It revolutionized a simplified arrhythmia monitoring in South Wales which could provide as an example for other centres.



Figure 1. Pictured left to right: The lead clinician of the project, a parent as the co-lead of the project, specialist cardiac nurse to maintain standards of this service from a clinical governance standpoint.

MISS MEGAN DALE, DR NORMAN QURESHI

Buckinghamshire Healthcare NHS Trust, UK

ABOUT THE REPORT

A novel NHS clinic utilising mobile technology to diagnose multiple patients with SVT.

REPORT CONTENT

Early symptom-rhythm correlation of supraventricular arrhythmias is crucial for appropriate patient treatment, prognosis and healthcare cost effectiveness. For years we have used ambulatory holter monitoring as the first line cardiology investigation to try to detect symptomatic arrhythmias in patients. However, the transient nature of arrhythmias means this form of monitoring generates a low diagnostic yield.

In Buckinghamshire, England, we have offered a subgroup of patients suffering from infrequent palpitations instead a Kardia mobile device for a 25-day monitoring period. The Kardia mobile device is the most clinically validated mobile ECG device to date. The evidence for the diagnostic utility is largely restricted to patient case studies or community screening for atrial fibrillation. However, the application of this monitor we have proved is much greater; by using it on a clinical scale.

The Kardia clinic was set up at Wycombe Hospital in Buckinghamshire, England. Referrals were restricted to Consultant Cardiologists and Cardiac Specialist Nurses whose patients met the inclusion criteria of infrequent palpitations and had a compatible smart phone or tablet. Patients were invited to a clinic appointment to learn how to use the Kardia monitor and app. They could then record single-channel ECG tracings during their episodes of palpitations. This would then be sent from their smartphone to a secure NHS



email address for review by a Cardiac Physiologist. Results from the Kardia clinic would be reported back to the referrer and patients received appropriate follow-up.

As opposed to a single case study example to document the usefulness of our Kardia clinic, a service evaluation was performed. This concluded that out of the 169 patients referred, the detection rate of supraventricular tachycardias was 22.49%. Furthermore, of the 35 patients our electrophysiologist Dr Qureshi had referred, 48% of patients achieved a symptom-rhythm correlation of a supraventricular tachycardia. 28% were diagnosed with paroxysmal atrial fibrillation and the remaining 20% with another form of supraventricular tachycardia including atrial tachycardia and atrioventricular nodal re-entrant tachycardia.

We have now been able to prove there is a diagnostic place for outpatient mobile monitoring with the success of our Kardia clinic. These results are of great value to the future management of infrequent palpitations on an outpatient basis for the specialty of Cardiology. We would urge any Cardiology department to embrace this disruptive technology against the traditional system; to streamline your patient pathways and increase cost-effectiveness.

END-TO-END ARRHYTHMIA NURSE SPECIALIST-LED PATHWAY FOR SVT DIAGNOSIS, ASSESSMENT AND MANAGEMENT



DR RICHARD ANG, KATHERINE STANDBRIDGE, ALEXANDRA WISE, CARA BROMLEY, CHLOE FORD, OLIVIA HEASMAN, PAULA MARTINEZ, DR RON SIMON, DR ANTONIO CRETA, DR MALCOLM FINLAY

Barts Heart Centre, London, UK

ABOUT THE REPORT

A retrospective observational study on an innovative nurse-led end-to-end pathway for SVT diagnosis, assessment, and management.



INTRODUCTION

Barts Heart Centre is one of Europe's largest cardiac centres. The centre performs around 1400 ablation procedures each year with SVT ablations accounting for a third of the procedures (400-500 per annum). The heart rhythm service at Barts has a track record of developing innovative practices in heart rhythm care and has developed a nurse-led end-to-end pathway to diagnose and manage patients with supraventricular tachycardia (SVT).

METHODS

A retrospective observational study of patients who attended the arrhythmia nurse specialist-led arrhythmia one stop clinic between 2019-2022.

RESULTS

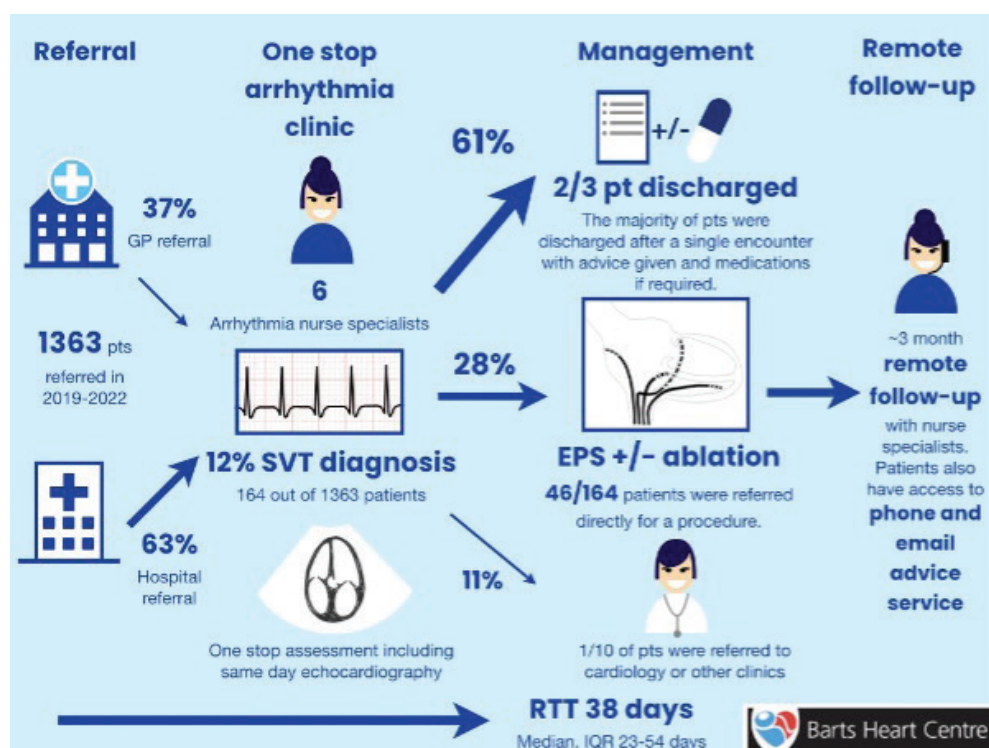
1363 patients with palpitation symptoms or a suspected heart rhythm diagnosis were referred in by GPs, the emergency department, or other medical teams within the Trust to the arrhythmia one-stop clinic. The median referral to appointment time was 38 days (IQR 23 to 54 days). Patients who attended the one-stop clinic had a full clinical assessment, review of relevant investigation results, and a 12-lead ECG and echocardiogram performed on the same day if required.

164/1363 (12%) had a diagnosis of SVT. 100/164 (61%) of patients were

discharged at this point with advice given and suggested medication if required. 46/164 (28%) of patients were listed to have an EP study +/- catheter ablation procedure. The remaining 18 (11%) patients were referred to a cardiology clinic or other relevant specialties. The patients listed for a procedure were provided with a patient information pack and an on-line link to access a bespoke animated video on the procedure (www.explainmyprocedure.com/barts) as part of the informed consent process. After their ablation procedure, patients were booked into a 3-month remote follow-up appointment with the nurse specialists. Throughout the patient journey a telephone advice and generic email inbox were available for patients during working hours.

CONCLUSIONS

The arrhythmia nurse-led end-to-end pathway has enabled a streamlined patient journey with reduced referral to treatment waiting times for patients with SVT. The majority of patients were discharged after a single clinical encounter in the one stop clinic.



NOVEL ULTRA-HIGH DENSITY MAPPING AND ABLATION TECHNIQUE FOR AV NODAL RE-ENTRANT TACHYCARDIA



DR ARTHUR YUE, DR MICHAEL POPE, DR SHANKAR SADAGOPAN

University Hospital Southampton, UK

ABOUT THE REPORT

We would like to present a novel approach to map and ablate AVNRT. We believe it will assist operators globally to tackle challenging cases to minimise complications and improve patient outcome.

INTRODUCTION

Catheter ablation of AV nodal re-entrant tachycardia (AVNRT) is a well-established curative treatment for supraventricular tachycardias in children and adults. However, the procedure can be challenging particularly for patients with smaller cardiac dimensions and unusual anatomy. The conventional primarily anatomically-based ablation approach carries an increased risk of complications in such patients and there is no current accepted technique for electro-anatomical mapping to target the slow pathway (SP). We present a novel mapping approach to target SP ablation and have validated this technique in patients with normal and abnormal anatomy.

METHODS AND RESULTS

Three-dimensional local activation timing (LAT) mapping is not conventionally used for AVNRT ablation. We adopted the use of this well accepted method to locate the site of latest activation as a target for SP ablation.

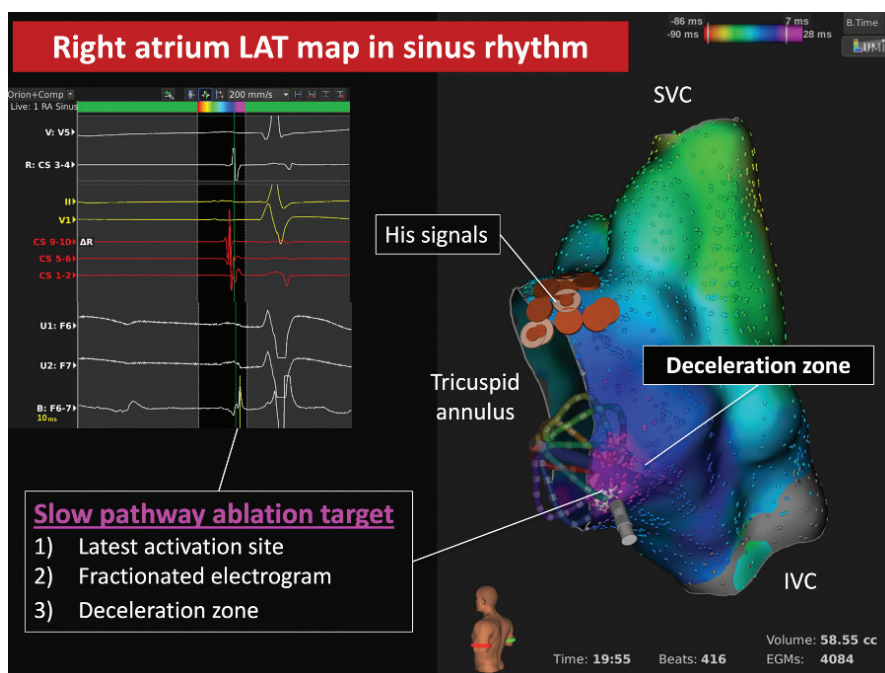
SP ablation targets were identified when the following criteria were met:

- 1) an area in the right atrial septum with the latest activation time
- 2) multi-component atrial electrogram, and
- 3) adjacent to a region with isochronal crowding or deceleration zone.

Twenty-eight patients (median age 16.5, range 10-62 years) underwent SP ablation guided by the novel technique. Of these, 21 had normal anatomy and 7 had persistent left sided superior vena cava (PLSVC). Twenty were paediatric patients. Ultra-high-density local activation timing (LAT) mapping of the right atrium in sinus rhythm was performed with either the CARTO or Rhythmia mapping systems. SP ablation targets were consistently identified by the 3 criteria in patients with normal and abnormal anatomy. For patients with normal anatomy vs. PLSVC, successful ablation was achieved with a median of 56 vs 43 sec radiofrequency ablation or 16 vs 14 mins of cryoablation respectively. Ablation in this area led to 100% successful SP modification reaching standard acute clinical endpoints with no complications.

RESULTS

We have presented a novel approach to map and ablate AVNRT. The consistency of our ability to achieve success with short durations of energy application suggested that our approach is feasible to accurately locate the SP in patients with normal and abnormal anatomy including paediatric patients. We believe that our mapping technique can further the understanding of pathophysiology of AVNRT, and assist operators globally to tackle cases with conventional and challenging anatomy to minimise complications and improve patient outcome.



MISS CATHERINE RENWICK, DR JAN TILL, MR DAN BLACKER

Royal Brompton and Harefield, London, UK

ABOUT THE REPORT

To our knowledge, this is the first children's nurse-led SVT clinic in the UK

INTRODUCTION

Supraventricular tachycardia (SVT) is the most commonly occurring tachyarrhythmia in childhood; estimated prevalence 1:250-500. SVT is mostly benign, however may pose a life-threatening risk during neonatal and infant periods.

METHODS

The nurse-led SVT clinic was established in 2008. Documented SVT accounted for 40% of children attending the paediatric arrhythmia clinic. Children were historically seen by the medical team.

The nurse led clinic intends to:

- Optimise patient waiting times and clinic efficiency
- Enhance patient support
- Provide consistency with follow-up and between appointments

The clinic runs concurrently with the consultant-led clinic, providing nursing support where necessary. Patients seen have structurally normal hearts and previously documented SVT.

Children undergo investigations as necessary:

- 12 lead ECG
- Echocardiogram
- Flecainide / Digoxin blood levels
- U&E's, LFT's, TFT's (those taking Amiodarone, if not obtained locally)
- Ambulatory holter or event monitoring
- Exercise tolerance testing to assess exertional symptoms / risk stratify WPW
- Alivecor monitoring for children experiencing infrequent symptoms

Results of investigations are interpreted by the Nurse Consultant or Clinical Nurse Specialist and discussed with the patient / parents to formulate

treatment plans. Increasing scope of nursing practice with independent prescribing enables complete care provision.

In response to the Covid-19 pandemic, the clinic adopted a hybrid model with virtual and in-person consultations delivered. This increased clinic capacity from 4 in person consultations, to 6 virtual and 1-2 in-person consultations.



RESULTS

Fetal/neonatal SVT is managed with successful weaning from pharmacological therapy and discharge with no return of SVT, with a low re-occurrence rate in those discharged from clinic. Babies with persistent SVT or children presenting during childhood are managed with pharmacological therapy and/or vagal manoeuvres until they are old enough for EP study (EPS) and radiofrequency ablation (RFA). EPS and RFA counselling are provided over consecutive appointments to aid understanding and ensure competence in shared decision making and procedural consent. Some are transferred to adult arrhythmia services for ongoing care. An additional nurse-led transition clinic ensures a smooth care transfer.

CONCLUSIONS

Patients benefit from continuity/consistency during and between appointments. Babies/children are managed in the nurse-led clinic including managing up-titration and weaning of medication, continued care until referral for EPS/RFA, advice/support in non-pharmacological SVT management, transition and transfer to adult arrhythmia services, or discharge from children's services. Contact due to symptom development, challenges with medications, and daily SVT management enables prompt management via additional nurse-led telephone clinics, with changes in care communicated to local professionals.

THE OUTER SURFACES OF THE ATRIA, A QUEST TO FULLY UNDERSTAND WHAT DRIVES ATRIAL FIBRILLATION AND HOW BEST TO TREAT IT USING THE FULL PICTURE



**DR JOHN SILBERBAUER, DR JUSTO JULIA, DR IAN MANN,
MRS CATHERINE SHANNON, MS HELEN WOMERSLEY,
DR JAMES MCCREADY**

Sussex Cardiac Centre, University Hospitals Sussex NHS Foundation Trust, Brighton, UK



ABOUT THE REPORT

The report covers the research that we at the Sussex Cardiac Centre have accomplished that has allowed us to reach the point of leading a ground-breaking multicentre epicardial AF ablation trial. It also emphasises our wider interest in research and education for atrial fibrillation ablation.

REPORT CONTENT

In 2016, at the Sussex Cardiac Centre, we developed a novel method of obtaining epicardial access which is significantly safer than prior approaches. This is achieved through intentional coronary venous exit and CO₂ insufflation. The CO₂ creates a real rather than potential pericardial space, making access straightforward. This allows safe epicardial access even for patients on uninterrupted anti-coagulation. For the first time, this opens up the possibility to understand the outside of the atria both for mechanistic research and novel therapies.

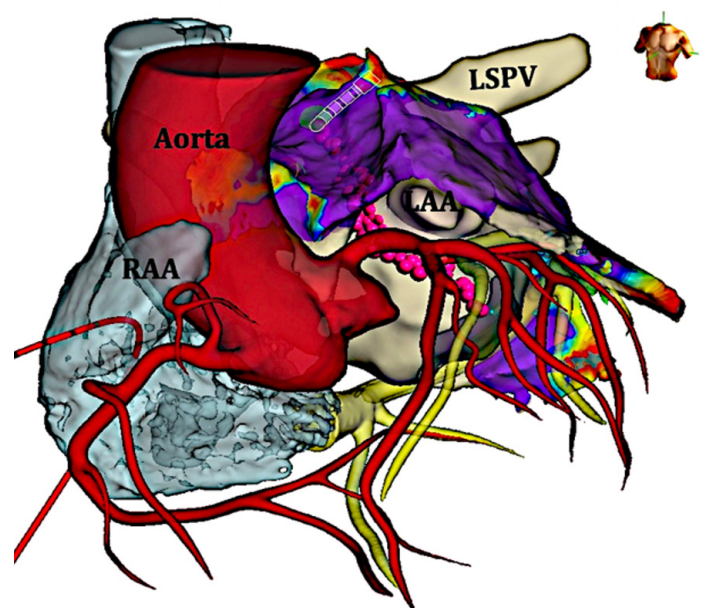
Persistent atrial fibrillation is a complex condition that is still not adequately dealt with via catheter ablation. Recurrence rates at 1 year are 50% with pulmonary vein isolation alone. For years, investigators have been struggling with this issue, looking for the elusive addition to PVI, the cornerstone of AF ablation. This is known as PVI plus.

Since 2020, we have been systematically assessing the added benefit of epicardial ablation using our epicardial access method for patients suffering with persistent atrial fibrillation. We have found that using the bilayer approach allows for a much greater proportion of linear lesion ablation sets to be blocked, as compared to the traditional endocardial only approach. This has led to very low AF recurrence rates.

Based on our encouraging pilot data, we have received a research grant to run a UK-based multicentre randomised trial assessing our version

of PVI plus using epicardial ablation for patients with symptomatic persistent atrial fibrillation. The trial will randomise 126 patients to either redo pulmonary vein isolation or redo pulmonary vein isolation plus an endo-epicardial ablation. Patients will be followed up using implantable cardiac monitors.

As of 2023, we will have started our 4th UK/EU multicentre trial within the field of AF ablation. The Sussex Cardiac Centre has thus demonstrated clear commitment and leadership within the field of AF research, aiming to improve patient outcomes within this challenging field. In 2021, the Sussex Cardiac Centre, was chosen as a Centre of Excellence by one of our main industry partners. We are part of just a handful of centres across EMEA and the only UK centre. Through this partnership we have been delivering educational activities for consultants and trainees in AF ablation across EMEA. We believe that through our innovative research and educational programmes that we are now a world leading centre in the field of treating patients that suffer with atrial fibrillation.



BENEFITS OF A DECAPOLAR CATHETER FOR FLUOROSCOPY FREE SUPRAVENTRICULAR TACHYCARDIA ABLATIONS



**SOPHIE GEORGE, ALANNA MORRISON, STACEY JAMES,
ELEANOR THOMPSON, DR MARTIN LOWE, DR JASVEER MANGAT**
Great Ormond Street Hospital, London, UK

INTRODUCTION

The Electrophysiology (EP) service at Great Ormond Street Hospital is the largest volume paediatric supraventricular tachycardia (SVT) centre in the United Kingdom offering 100-120 procedures a year. We have provided fluoroscopy free catheter ablation for over a decade. One of the ways we have achieved this is by using a decapolar catheter to create the 3D map with EnSite Precision and Carto 3D mapping systems. This method allows for ablation catheter selection after the diagnosis of the mechanism of the SVT. Our case report below highlights how we strive to ensure our patients benefit from the utilisation of the latest technology to deliver safe, effective treatment and judicious use of resources.

METHODS & RESULTS

A 10-year-old girl with a clear history of sudden onset heart racing symptoms and documented short runs of SVT. Baseline 12-lead ECG shows intermittent ventricular pre-excitation (Figure 1), she was listed for EP study +/- ablation. The case was performed using Carto 3D mapping system with FamDx to allow geometry collection without an ablation catheter. A 3 wire EP study was performed using a 7F DecaNav 2-8-2 decapolar, 5F 2-5-2 hexapolar and 5F 5-5-5 quad catheter. A right atrial geometry was created using the DecaNav catheter and HIS location tags were marked. Standard retrograde and anterograde testing was performed and a diagnosis of orthodromic atrioventricular re-entry tachycardia (AVRT) was made using HIS

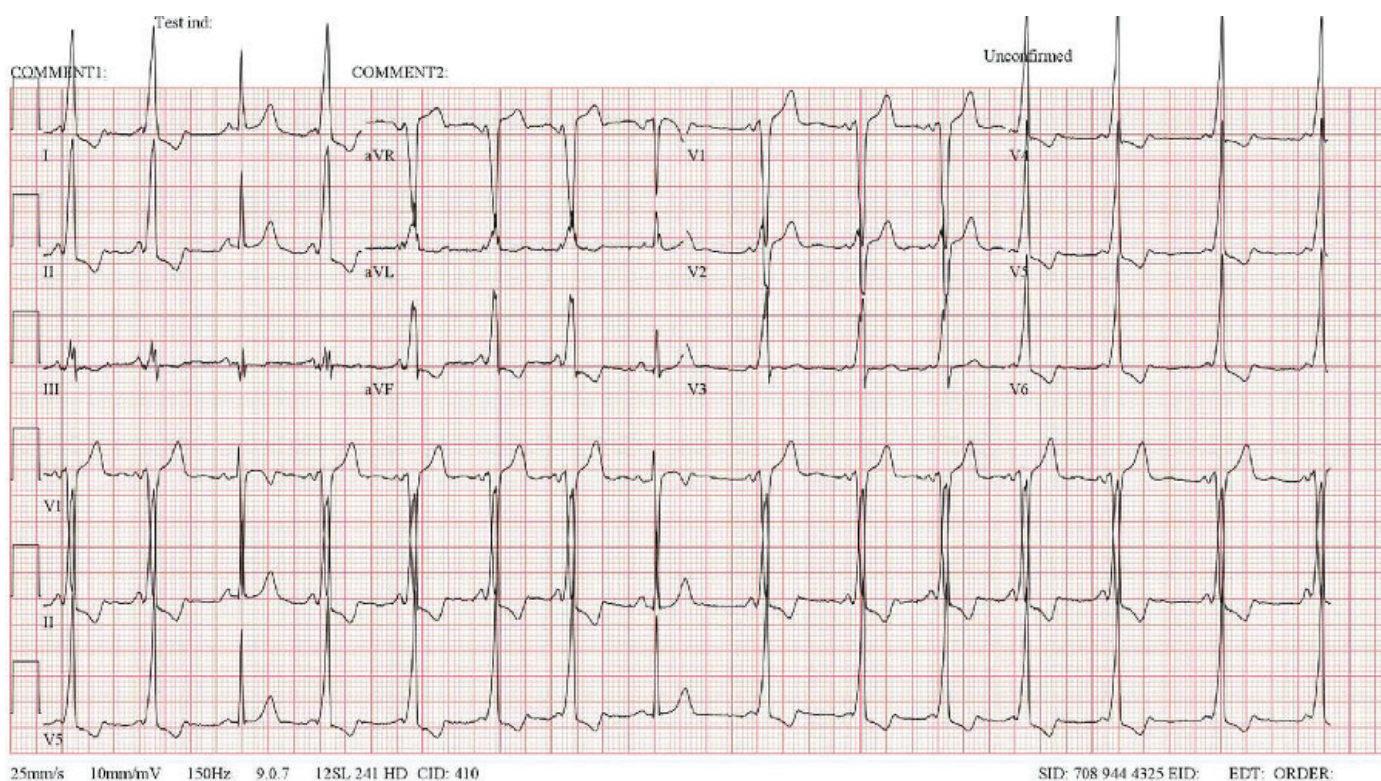


Figure 1. Baseline ECG shows intermittent pre-excitation and baseline intervals confirmed this with variable HV intervals of 34ms and -24ms respectively. The pathway was found to be safe anterogradely with an effective refractory period (ERP) of 310ms.

CARDIAC MONITORING SOLUTION, MAWI, TO DETECT ARRHYTHMIAS THAT SINGLE ECGS, OR 24-HOUR MONITORING COULD MISS



MISS FAYE SINGLETON AND ZORIANA BILOUS, PHD, MD

CardioLogic, UK

INTRODUCTION

With the sporadic and unpredictable nature of SVT, specifically Paroxysmal Atrial Flutter (PAF), identification of the arrhythmia can be missed during an ECG appointment or even using a single 24-hour holter. PAF episodes can vary from a few seconds in a few days, to multiple hours during a single day, or even a couple of days. The biggest hurdle is the detection of single, short episodes of PAF. The Mawi [Figure 1] is a cardiac monitoring solution that records an ECG on two channels for up to 7 days.



Figure 1. The Mawi device.

METHODS

A 61 year old patient noted chest discomfort in 2015. Following this a coronary angiography was conducted and revealed a stenosis of 80% at the anterior interventricular branch of the left coronary artery. No other diagnosis was uncovered. Stenting of the left coronary artery was performed in 2021. Despite stenting, the patient continued with symptoms of chest pain, palpitations, and discomfort.

The Mawi is a discreet, lightweight patch that gives patients freedom to continue with their daily routines and activities without limits. Therefore, the Mawi enables the detection of both short PAF and longer episodes. The patient underwent a three-day ECG recording analysis using the device.

RESULTS

PAF was not recorded within the first 24 hours post device application [Figure 2]. On the second day of monitoring, a PAF episode: persistent form, normo-tachysystolic variant, with 20 ventricular complexes and a maximum ventricular rate (HR) of 138 beats/min was detected [Figure 3]. On the third day, another episode of PAF with 233 ventricular complexes was detected with a maximum duration of 22s and a maximum heart rate of 97 beats/min [Figure 4].

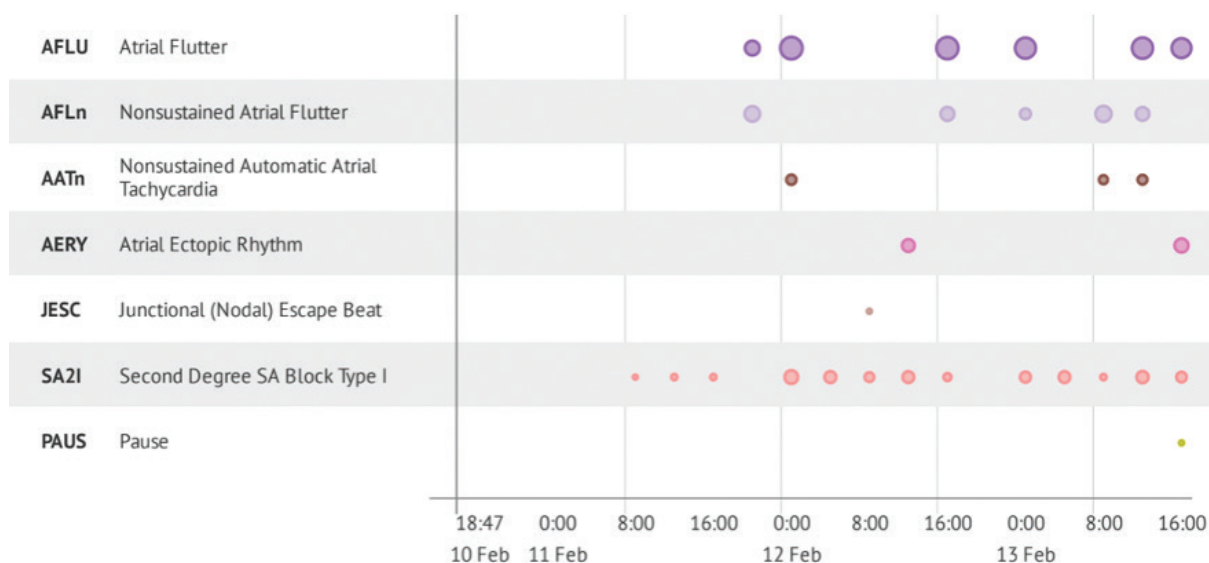


Figure 2. Atrial Flutter recorded on day 2 and day 3 of Mawi monitoring.

CONCLUSION

After the three days of monitoring, a Mawi report was generated. The patient was diagnosed with PAF and prescribed an ablation of the cavotricuspid isthmus as an initial treatment, however, PAF was restored. Subsequently the patient was prescribed Cordarone to restore sinus rhythm. Detection of PAF on the second and third day of analysis indicates the advantages of extended monitoring with Mawi. Whilst a 24-hour holter, a 12-lead ECG or a spot monitor device, would have reported no PAF. The general convenience of Mawi monitoring enables long-term monitoring to detect arrhythmias that single ECGs, or 24-hour monitoring, could miss.

Declaration of conflict of interest as CardioLogic Distribute Mawi in the UK.

Atrial				
Beats	Event		Beats	
	Atrial Premature Contraction		6036 (2.35%)	
	Aberrated Atrial Premature (Ashman) Beat		2 (0%)	
Rhythm	Event	Episodes	Dur	Beats
	Atrial Trigeminy	153	25m	1608 (0.63%)
	Atrial Couplet	39	-	78 (0.03%)
	Atrial Triplet	10	-	30 (0.01%)
	Atrial Bigeminy	21	2m 13s	163 (0.06%)
	Atrial Flutter	7	4h 58m	22903 (8.91%)
	Nonsustained Atrial Flutter	17	2m 37s	233 (0.09%)
	Nonsustained Automatic Atrial Tachycardia	3	-	15 (0.01%)
	Atrial Ectopic Rhythm	7	-	52 (0.02%)
TOTAL		257	5h 30m	30386 (11.82%)

Figure 3. 8% paroxysm episode detected by Mawi.



Figure 4. Paroxysm of atrial flutter shown by Mawi trace.

The following centers are acknowledged as a Supraventricular Tachycardia (SVT) Centers of Excellence. As evidenced by the case studies that have been submitted, and that have been published in this report, each center takes an innovative approach to managing SVT. Their work can be used to inspire other centers to improve care and quality of life for people with SVT.

UNITED KINGDOM

End-to-end arrhythmia nurse specialist-led pathway for SVT diagnosis, assessment and management

Dr Richard Ang, Ms Katherine Standbridge, Dr Malcolm Finlay, Alex Wise, Cara Bromley, Chloe Ford, Olivia Heasman, Paula Martinez, Ron Simon, Antonio Creta

Barts Heart Centre, St Bartholomew's Hospital, London, UK
www.bartshealth.nhs.uk/barts-heart-centre

Mobile App Clinics: The Future

Miss Megan Dale, Dr Norman Qureshi

Buckinghamshire Healthcare NHS Trust, UK
www.buckshealthcare.nhs.uk

Benefits of a Decapolar Catheter for Fluoroscopy Free Supraventricular Tachycardia Ablations

Sophie George, Alanna Morrison, Stacey James, Eleanor Thompson, Dr Martin Lowe, Dr Jasveer Mangat

Great Ormond Street Hospital, London, UK
www.gosh.nhs.uk

Paediatric Nurse-Led SVT clinic

Miss Catherine Renwick, Dr Jan Till, Mr Dan Blacker

Royal Brompton and Harefield, UK
www.rbht.nhs.uk

The outer surfaces of the atria, a quest to fully understand what drives atrial fibrillation and how best to treat it using the full picture

Dr John Silberbauer, Dr Justo Julia, Dr Ian Mann, Mrs Catherine Shannon, Ms Helen Womersley, Dr James McCready

Sussex Cardiac Centre, University Hospitals Sussex NHS Foundation Trust, Brighton, UK
www.uhsussex.nhs.uk/research-and-innovation

Novel ultra-high density mapping and ablation technique for AV nodal re-entrant tachycardia

Dr Arthur Yue, Dr Michael Pope, Dr Shankar Sadagopan

University Hospital Southampton, UK
www.uhs.nhs.uk

Transforming Ambulatory Rhythm Monitoring in Children: A Citizen and NHS Initiative

Professor Orhan Uzun. Citizens: Julie Montanari, Michelle Graham PhD, Hannah Godwin, Lottie Stokes Cardiac Nurse Specialists: Claire Logan, Emma Bengier, Karina Parsons-Simmonds, Wendy Williams Mobile Arrhythmia Device Service Medical Collaborators: Drs Soha El-Behery, Sian Jenkins, Poonamallee Govindaraj, Max Nathan, Anthony Goodwin, Marcia Scheller, Rainer Fortner, Amos Wong Cardiac Physiologists Carys Williams, Sheryl Morris, Dr David Rawlinson

University Hospital of Wales, Cardiff and Vale University Health Board, Wales, UK
www.cavuhb.nhs.wales

Cardiac Monitoring Solution, Mawi, to Detect Arrhythmias That Single ECGs, or 24-hour Monitoring Could Miss

Miss Faye Singleton and Zoriana Bilous, PHD, MD

CardioLogic, UK
www.cardiologic.co.uk



Working together to improve the diagnosis, treatment and quality of life for all those affected by arrhythmias.

To view case studies, centres of excellence, SVT healthcare pioneer reports or to submit a case study visit:
www.svt pioneers.org

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