



ROYAL CARE HOSPITALS

making life better



• **Editor & Publisher**

Dr. K. Madeswaran

Chairman - Consultant Neuro & Spine Surgeon



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CHAIRMAN'S COLUMN



Dear all,

Warm New year greetings to everyone

As we begin another quarter, I wanted to take a moment to reflect on our progress and share some thoughts on what lies ahead.

In the past year, we have faced unprecedented challenges in the healthcare industry, but I am proud of the way our team has risen to meet these challenges with resilience and determination. Our commitment to providing exceptional care to our patients has never wavered, and I am grateful for each and every one of you who has helped make this possible.

As we look ahead to the next quarter, we will be introducing a new advancement in the field of surgery- Robotic surgery. Our hospital is well-positioned to meet the changing needs of our patients and our community, and I am excited about the opportunities for growth and advancement that lie ahead.

I encourage each of you to continue to stay focused on our mission of providing the highest quality care and to always be looking for new ways to improve and innovate. Whether you are a clinician, administrator, or support staff, your contributions are essential to our success, and I am grateful for all that you do.

Regards

Dr. K. Madeswaran

Founder Chairman

From The **EDITOR'S DESK**

**"Learn from yesterday,
live for today,
hope for tomorrow" ...**

-Albert Einstein

The last few months have seen a barrage of new events and changes in the positive direction for the hospital, what people want and need has been constantly on the mind of our chairman Dr.K.Madeswaran and he strives to make them happen today. We have started the Robotic surgery program and a separate operation theatre is dedicated to patients who shall be undergoing this advanced procedure.

The hospital was awarded BEST SUPER SPECIALITY HOSPITAL for the 3rd consecutive year by the times of India group in recognition of the outstanding achievements of the team. For the comfort of master health patients, a self-contained master health department where no patient has to move around for any investigation has been created and the public has welcomed this initiative.

The new MRgFUS, which is the first of its kind in the entire Indian sub-continent has received accolades from patients and eminent doctors for the outstanding results it has provided instantaneously to the patients. Close to 3 dozen patients have reaped the benefits and now we hope to expand it to the nearby states and countries so those patients can also benefit from this groundbreaking treatment.

Royal care pulmonology team conducted a national program on trends in interventional pulmonology which was a huge success. This program shall be conducted on an annual basis to train many pulmonologists in advanced procedures to benefit the patients. We celebrated the 6th annual founder's day in November and we thank all our shareholders and patients for their continuous trust and support to make this a successful institution.

We also conducted various camps and awareness programs regarding colorectal cancer, infection control, mental health, physiotherapy, trauma, heart illness, etc for the benefit of the general public.

We congratulate Dr.M.N.Sivakumar on being elected as the executive member of the society of neurocritical care. In this edition, we have articles on MICS cardiothoracic surgery, an ingenious arthroscopy surgery case, an interesting publication on calcific pericarditis, and others. We welcome the new consultants who have joined Royal care Hospital and wish them success in their endeavors.

Editorial Board

Dr. B. Paranthaman Sethupathi

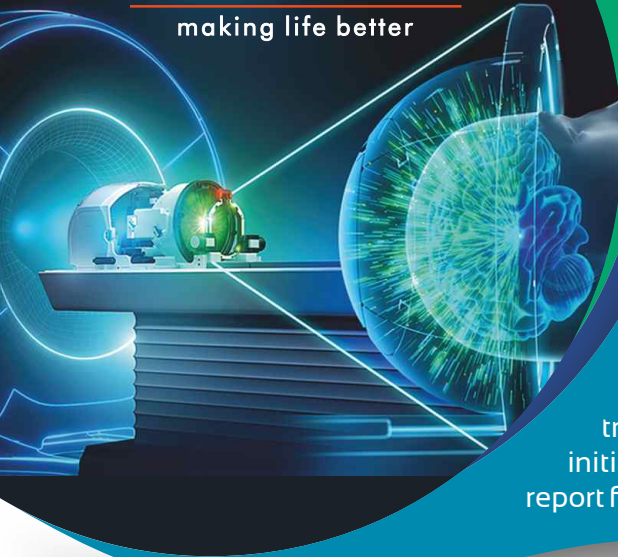
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What is all This **FUS** About



MRI guided FUS Thalamotomy - First report from the Indian subcontinent of 16 cases with tremors.

Background and Aims :

Stereotactic lesioning of the Ventralis inter medialis of the thalamus has been in vogue for many decades now. Newer targets have been identified for various neurological diseases. Safe and effective lesioning of these targets. has finally been achieved with the use of MRgFUS. The first MRgFUS randomized trial for essential tremors was reported in 2016, Herein we report our initial experience in 16 cases using MRgFUS. This is the first case series report from the Indian subcontinent.

Initial Report On 16 Course Active Cases First From The



16 consecutive cases of tremor - 6 Essential Tremor (ET) 1 case of dystonic tremor, 2 cases of spinocerebellar ataxia type 12, and 7 cases of Tremor Dominant Parkinson's Disease (TDPD) are reported. All these cases were subjected to VIM Thalamotomy using MRgFUS. The VO (ventralis oralis) nucleus was included in Two cases of TDPD and one case of hand dystonia with tremors. In two cases of Parkinson's disease lesion was placed in the Forel's HI field also in addition to VIM

Results: Tremor had abated in all the patients significantly with a marked reduction in CRS score. The 4 initial TDPD cases at the end of 2 months, had a marked reduction in UPDRS score. All the cases of essential tremors were resistant to all known medications. In all cases were administered dexamethasone 4mg was twice daily for 3 to 5 days. In 3 of these cases, a prolonged course of dexamethasone was administered for a period of 1 month. Mild ataxia was reported in all 16 patients. Dysarthria was reported in 10 out of 16 patients. Mild limb weakness and mouth deviation were noted in one patient which resolved in 1 month. Another patient reported subjective weakness in the right upper limb and lower limb, though there was no weakness on clinical examination. Two patients reported severe burning pain in the back during the procedure in which the target was moved 1mm anteriorly. One patient with TDPD reported improvement in the voice following the procedure. These excellent results prove the utility of this treatment modality.

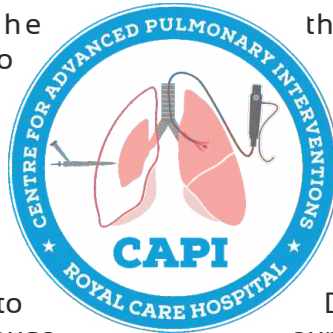




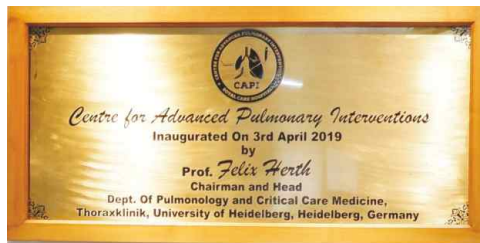
TRENDS IN INTERVENTIONAL PULMONOLOGY (TIP)

A Series of Workshops For Advancing The Science

The Department of Interventional Pulmonology and Sleep Medicine at Royal care hospital established the Centre for Advanced Pulmonary Interventions (CAPI) on the 3rd of April 2019. The Centre was inaugurated by Prof Felix Herth with an accompanying CME. The objective of establishing CAPI was to develop a state-of-the-art training centre in interventional procedures for pulmonologists across the state, country, and the world. We have started short interventional school courses under the banner of TIP which is done over the weekend lasting one to three days. In addition to our in-house faculty, we also invite experts from across the country as trainers in this school course. This course which was first held between the 29th to 31st of July 2022 and then on the 11th of December 2022 has been a roaring success with participants hailing from Kashmir to Kanyakumari and Gujarat to Manipur gaining insights into the intricacies of interventional



pulmonology. Among scores of such workshops, TIP has emerged as unique due to its obsession to limit the number of participants to 30 per session, extensive groundwork with the participants before the session to assess their needs and tailoring the course accordingly, an interactive pattern of the course which ensures audience engagement from the word go, adequate hands-on training time, live streaming of demonstrative cases and supreme dedication of faculty and all staff of the hospital engaged to ensure the success of these courses. Due to the overwhelming response and our aim to restrict numbers per session, we plan to conduct courses a few times per year. CAPI has also started a one-year fellowship program in Interventional pulmonology in association with the Indian association of bronchology (IAB) and we have an intake of two fellows per year with the first batch having started in September 2022. We are one of the first institutes in the country and the first in the state to offer this course.



CALCIFIC CONSTRICTIVE PERICARDITIS

Putting Things in a NUTSHELL



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Abstract

Calcified pericarditis is a rare occurrence, most commonly seen with constrictive pericarditis. Our patient was a rare case where the presentation was a seizure, with the rare complication of refractory prolonged corrected QT interval (QTc) ventricular tachycardia, which was appropriately managed.

The diagnosis of calcific pericarditis arrived early, the patient stabilized in the intensive care unit (ICU) appropriately and underwent the definitive

surgery on time to survive this fatal condition.

Keywords: Calcific pericarditis, Constrictive pericarditis, Eggshell calcification, Pericardiectomy.

Indian Journal of Critical Care Case Report (2022):10.5005/jp-journals-11006-0008

Case Description

A 53-year-old female, known hypothyroid on thyroid replacement, came to our hospital with a history of sudden loss of consciousness followed by up rolling of eyes and vomiting. On admission, she was conscious with a Glasgow Coma Scale of 15/15, obeying simple commands, and moving all four limbs. Computed tomography (CT) brain was normal. She was hemodynamically stable with a blood pressure of 110/60 and a heart rate of 84 in sinus rhythm. Electrocardiogram (ECG) showed low voltage complexes with T wave inversion in

lateral leads. She also admitted to having pedal edema and dyspnea, which had worsened from New York Heart Association class I–III over the last 2 months. She was admitted to the ICU for further evaluation and care.

On examination, the patient had elevated jugular venous pressure (JVP) and significant pedal edema. Ultrasound abdomen showed grossly dilated hepatic veins and inferior vena cava (IVC) associated with moderate ascites, bilateral moderate pleural effusion, and normal liver echotexture. All these findings pointed towards a diagnosis of congestive cardiac failure. Anti-failure measures with diuretics and antiepileptics were used for initial stabilization. Routine chest X-ray surprisingly revealed eggshell-like calcification of cardiac shadow (Fig. 1). Echocardiogram (ECHO) showed global left ventricle dysfunction (ejection fraction 30%), severe tricuspid regurgitation, severe pulmonary arterial hypertension (PAH), right atrial and right ventricular dilatation with grossly dilated IVC. Within hours of admission to the ICU, the patient developed several episodes of ventricular fibrillation and pulseless ventricular tachycardia, which were managed with cardiopulmonary resuscitation, direct current shock, and amiodarone as per American Heart Association Advanced Cardiac Life Support protocol. Post-resuscitation she was conscious and obeying. She

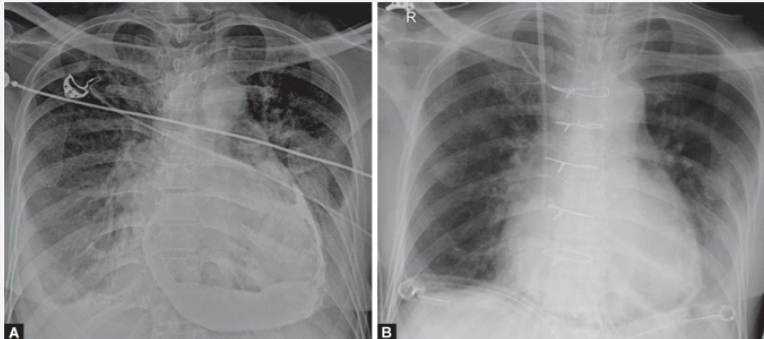




had hypotension requiring a low dose of norepinephrine and tachypnoea which was managed with noninvasive ventilator support. On further evaluation, she had prolonged QTc of more than 600 ms. Amiodarone was stopped and switched over to lignocaine infusion. Unfortunately, the ventricular tachycardia (VT) episodes persisted. Dyselectrolytemia was ruled out. Mexiletine and magnesium sulfate infusions were used to control VT, however, elevated QTc persisted.

Computed tomography thorax showed extensive pericardial calcification with a maximum thickness of 2.9 cm and cardiomegaly (Fig. 2). Serum calcium level was normal, hence, parathyroid levels were not checked. A multidisciplinary meeting involving intensivist, cardiologist, and cardiothoracic surgeon was undertaken. A probable diagnosis of calcific constrictive pericarditis causing right heart failure and arrhythmias was made. The plan was to first stabilize the QTc. The patient underwent a left-sided stellate ganglion block with bupivacaine. Subsequently, the QTc normalized with no further

arrhythmias. A coronary angiogram showed normal epicardial coronaries. Once the patient was clinically stable, she underwent pericardiectomy through median sternotomy. Intraoperatively, the pericardium was found to be thickened and heavily calcified, more on the apex, anterior, lateral, posterior, and inferior surfaces. The thickened and calcified pericardium was dissected away from the epicardium and phrenic nerve. The postoperative period was uneventful. During the ICU stay, the patient developed acute kidney injury and transaminitis both of which gradually improved. Heart failure signs improved, vasopressors were weaned, and there were no further episodes of arrhythmias. She was extubated and shifted out of the ICU on the 5th postoperative day. A follow-up ECHO showed normalized biventricular function with the dilated right heart and severe tricuspid regurgitation and PAH. Biopsy results were negative for tuberculosis (TB) GeneXpert and culture. The patient was discharged home on the 11th postoperative day on a beta-blocker, diuretic, and angiotensin receptor blocking agent.



Figs 1 A and B: Initial chest X-ray showing eggshell-like calcification of pericardium and the postoperative chest X-ray

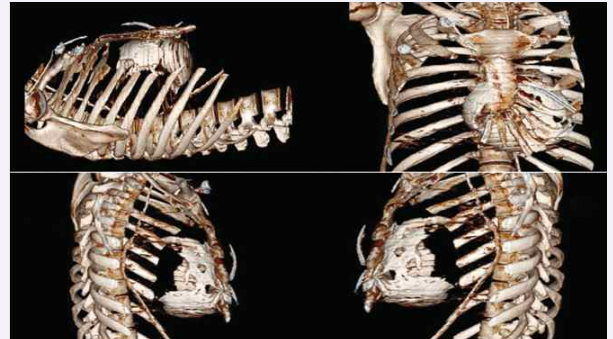


Fig. 2: Three-dimensional reconstruction from CT thorax showing the calcification of pericardium

During the review clinic visit, she was hemodynamically stable with no further symptoms.

Discussion

Constrictive pericarditis is a clinical entity that is characterized by stiffness of the pericardium resulting in the inability of the heart to stretch to accommodate volume changes during the cardiac cycle. It develops when a thickened fibrotic pericardium, of whatever cause, impedes normal diastolic filling. Constrictive pericarditis is not a

very common disease anymore.¹ However, calcified pericarditis is very common among those who develop constrictions. In a study done by Ling et al., 27% of patients who were diagnosed with constrictive pericarditis were found to have pericardial calcifications, while other studies have shown that the percentage varies depending on the type of population.

There are several causes of constrictive pericarditis, including idiopathic, infective (TB, bacterial, viral, and fungal), malignancy, post-



thoracotomy/cardiac surgeries, drug-related, postradiation therapy, connective tissue disorders, uremia, and post myocardial infarction.¹ Previously TB used to be the most common cause of calcified pericarditis, however, of late majority of cases are found to be idiopathic.³ Our patient did not have a history or investigations suggestive of TB and mostly favored an idiopathic cause.

The initial evolution of the pericardial constriction may be subclinical. These acute and subacute forms of pericarditis cause deposition of fibrin in the visceral and parietal pericardium evoking pericardial effusion. The effusion eventually gets resorbed, and the pericardium becomes scarred and thick. It is important to realize that this process involves both the pericardium and cardiac muscles. This can eventually result in calcification and restricts cardiac filling.

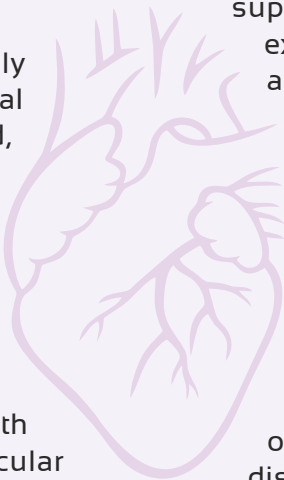
In constrictive pericarditis, the easily distensible, thin parietal, and visceral pericardial lining becomes inflamed, thickened, and fused. The potential space between the linings is obliterated, and the ventricular distensibility is lost. Venous return to the heart gets limited, ventricular filling is reduced and unable to maintain adequate preload. The filling pressures of the heart tend to become equal in both ventricles and the atria. The ventricular pressure initially decreases rapidly, producing a steep Y descent on right atrial pressure waveform tracings, and increases abruptly to a level that is sustained until systole (square root sign).

Most cases of constrictive pericarditis involve the right side of the heart.⁴ As a result, they cause symptoms like bilateral leg edema, dyspnea, orthopnea, fatigue, increasing abdominal girth (secondary to hepatic congestion/bowel congestion), nausea, vomiting, and malaise. On examination, they may have an elevated JVP, Kussmaul sign, pleural effusion, pulsus paradoxus, ascites, muscle wasting, cachexia, hepatomegaly, and peripheral edema.

X-ray of the chest may show calcification around the cardiac shadow. ECG is usually nonspecific with sinus tachycardia. Atrial fibrillation occurs in

less than 50% of cases in the literature.⁵ Localized constriction of the epicardial coronary arteries may produce changes consistent with infarction, and right ventricular constriction may produce changes in right ventricular hypertrophy and strain pattern.⁶ ECHO is highly sensitive and can help to differentiate calcified pericarditis from constrictive cardiomyopathy by having a cutoff of more than 8 cm/second by pulse tissue Doppler for early diastolic velocity of the lateral or septal mitral annulus.⁷ Doppler studies, used in conjunction with respiratory recordings, are highly sensitive for diagnosing constriction and guiding further management.⁸ The Doppler velocity of mitral inflow, specifically early rapid ventricular filling and late filling with atrial contraction (A), was measured with flow velocities in the hepatic vein or superior vena cava during inspiration and expiration. Constriction was associated with an increase (>25%) in the E velocity and an increased diastolic flow reversal with expiration in the hepatic veins. CT scans can clearly delineate the presence of calcification. Our patient showed significant calcifications in both the chest X-ray and CT. Masui et al. demonstrated that the diagnostic accuracy of magnetic resonance imaging (MRI) for diagnosing pericardial constriction was 93%.⁴ Detection of the pericardial thickness of >4 mm distinguished pericardial constriction from restrictive cardiomyopathy—an important differentiation, as therapeutic interventions which influence the survival rates are possible for pericardial constriction.⁹ The classic changes visible on MRI or CT scanning that are suggestive of a constrictive process include a thickened pericardium, small tubular shaped ventricles, a flattened or sigmoid-shaped septum, and a dilated right atrium and IVC. Brain natriuretic peptide will be high due to increased ventricular wall stretch.

Medical treatment includes steroids for pericardial fibrosis, diuretics to relieve congestion, inotropes for right ventricular failure, and therapy directed towards the causative disease (such as antitubercular treatment for TB). Definitive treatment in severe calcification, such as our case, is surgical pericardial decortication. Without surgery,





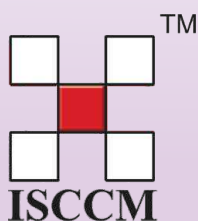
myocyte atrophy impairs ventricular function, and the outlook is very poor. The patient becomes rapidly disabled and dependent.¹⁰ Pericardiectomy is the treatment of choice for constrictive pericarditis. It is usually a long duration and often a technically complex procedure. The two standard approaches are anterolateral thoracotomy and median sternotomy. Pericardial decortication should be as extensive and complete as possible. It is usually difficult to identify intraoperatively which parts of the pericardium exactly are the culprit, and hence there have been cases reported of re-exploration due to incomplete decortication.¹¹ These surgeries can be complicated by excessive bleeding, atrial or ventricular arrhythmias, and ventricular wall rupture. It is important to do an angiogram prior to

surgery in order to decide the best surgical approach. Sarcoidosis could be a rare cause of this condition and it was ruled out in the biopsy.

To conclude, calcified pericarditis is a rare entity, its diagnosis is challenging and can be elusive. However, it is a diagnosis that should be considered and ruled out in patients who present with cardiac failure, as the management is drastically different. Our patient was one such rare case where the presentation was a seizure, with the rare complication of refractory prolonged QTc ventricular tachycardia, which was appropriately managed, the diagnosis of calcific pericarditis arrived early, the patient stabilized in ICU appropriately and underwent the definitive surgery on time to survive this fatal condition.

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GLIMPSE

Received Best Super
Speciality Hospital Award
2022 by Times of India from
Thiru.R.SAIKKARAPANI,
Minister for Food and Civil
Supplies Govt. of Tamilnadu.



Health Awareness Stall
Inaugurated at Royal Care
Premises on 11.03.2022
towards Colorectal Cancer
Awareness Day



75th Independence Day
Celebration at Royal Care
on 15.08.2022



Celebrated World
Physiotherapy Day
at Royal Care on
08.09.2022



Leadership Management
Program conducted for
Royalcare Top Management
by LMI-Carpe Diem on
15.09.2022





Health Awareness program held at Royal Care on 29.09.2022 towards World Heart Day

Health Awareness program held at Royal Care on 10.10.2022 towards World Mental Health Day



Awareness Program held at Royal Care on 17.10.2022 towards World Trauma Day



BMD stall inaugurated at Royal Care on 20.10.2022 towards World Osteoporosis Day

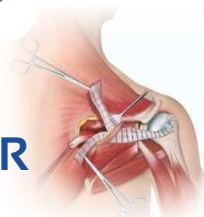


Infection Prevention Week 2022 celebrated at Royal Care on 22.10.2022



ARTHROSCOPY ASSISTED LOWER TRAPEZIUS TRANSFER

For Massive Irreparable Cuff Tear - Case Report



Dr. C. Karthikeyan

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Arthroscopy Surgeon

Massive irreparable cuff tears are a challenging problem to deal with, especially in young adults.

I present a case of a 49-year female fisherwoman who presented with a fall 18 months back and a history of pain and difficulty in doing her daily activities. Examination revealed a full passive range of movements with weakness of abduction and external rotation.

MRI reported a complete full-thickness tear of supraspinatus and infraspinatus with atrophy (occupation ratio 30%) and grade 4 fatty Infiltration Torn tendons were retracted up to the glenoid margin with subscapularis tendinosis.

Considering her age and function, she underwent the following procedure.

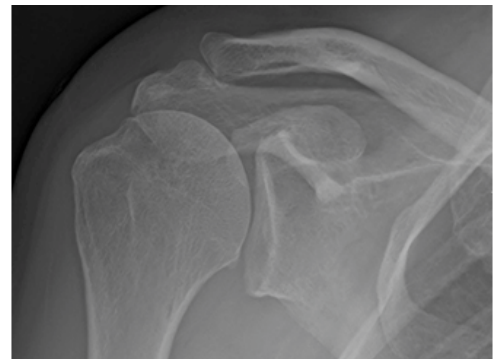
Procedure :

Arthroscopy assisted lower trapezius transfer using peroneus longus autograft.

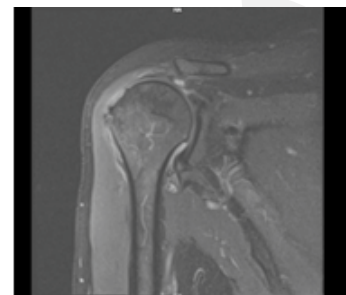
Using a Beach chair position exposing the medial scapula border by a 7 cm horizontal incision, the lower trapezius was released from attachment. Diagnostic scope revealed complete supraspinatus and infraspinatus tears with torn ends retracted and irreparable: Partial tear in the superior portion of the subscapularis was noted which was repaired. A greater tuberosity attachment site was prepared. Peroneus longus was harvested and doubled, and the tendon was introduced into the joint from the scapula wound and anchored to the greater tuberosity using 2 knotless anchors. The free end of the tendon was

sutured to the lower trapezius in tension with the arm in abduction and external rotation.

The arm was placed in an abduction brace for 6 weeks, following which rehab was started. At the end of 6 months, the patient has a pain-free range of movements and has returned to normal activities with good function.



X-Ray : Proximal migration of Humeral Head with no Arthritis



MRI : Complete full thickness Tear of Supraspinatus and Infraspinatus with Retraction and Atrophy



Position : Beach Chair



Peroneus longus Harvested and doubled

Discussion :

Originally described by Elhassan et al. in 2009, lower trapezius tendon transfer (LTTT) has emerged as an alternative to LDTT (Lattismus Dorsi Tendon Transfer) in treating irreparable posterosuperior cuff tears. Initially, this procedure was indicated for patients with paralytic shoulders who lacked external rotation. According to cadaveric and biomechanical studies, the LT is a more anatomic selection for tendon transfer compared to the LD, as its line of pull is nearly identical to that of the infraspinatus. However, the LTTT is an indirect transfer as the lower trapezius tendon lacks enough amplitude to reach the greater tuberosity without an interposition graft. Still, LTTT theoretically provides a more effective

external rotation moment arm compared to that of LDTT as well as similar excursion and tension forces as the native infraspinatus. This theoretically may lead to a more "in-phase" transfer that is easier for patients to retrain postoperatively.

Several studies describe short-term improvements in pain and shoulder function after LTTT for the treatment of irreparable posterosuperior cuff tears. In Elhassan's original series on patients with brachial plexopathies, all 111 patients with paralytic shoulders achieved external rotation improvement with a mean increase of 70 degrees. Elhassan also reported on 33 patients who underwent LTTT with Achilles tendon allograft, finding that 97% of patients had significant improvement in pain, function, and range of motion at a 4-year follow-up. Mean improvement in forward flexion, abduction, and external rotation were 50 degrees, 50 degrees, and 30 degrees, respectively. Despite these studies reporting promising results after LTTT, the durability of this outcome is unclear as there are currently no studies with long-term outcomes.

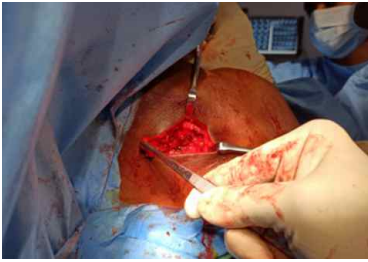
Considerations that are reportedly associated with improved outcomes after LTTT include patients with minimal to no glenohumeral osteoarthritis, preoperative shoulder flexion greater than 60 degrees, and less than 2 years time elapsed from symptoms to presentation.



Diagnostic Arthroscopy : Irreparable Cuff tear retracted beyond Glenoid Margin.



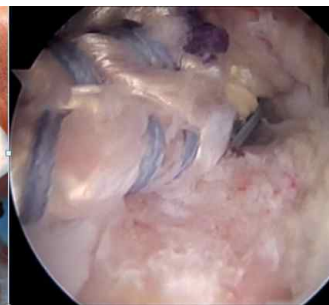
Procedure : Partial Thickness Tear of Subscapularis repaired with Single Anchor



Peroneus Longus graft was introduced into the joint from the scapular wound and Anchored to greater tuberosity using knotless anchors



Harvest of Lower trapezius from the spine of the scapula



The free end of the graft attached to lower trapezius in tension with arm in abduction and external rotation



Postoperative :
Arm immobilized in Abduction



3 Months Post-OP : Patient has a full range of abduction

Conclusion:

Although the last several years have seen technical advances and innovations in the treatment of massive irreparable rotator cuff tears, there is still no clear consensus on a superior operative intervention. Thus, tailoring patient

needs and characteristics to the chosen intervention is important to optimize the chance of success. Tendon transfers of the LD and LT for irreparable posterosuperior tears may be reasonable options for young patients with high preoperative functional statuses.



Into the New Era. *Minimal Access to* CARDIAC SURGERY



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Dr. K. Chockalingam

MD, DM (Cardio),
Consultant Interventional Cardiologist



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MBBS, MD.,
Consultant Cardiac Anaesthesiologist

Introduction:

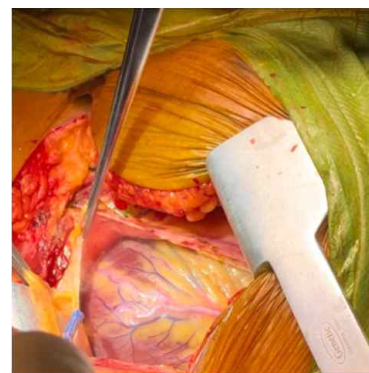
Over the past two decades, minimally invasive cardiac surgery has been adopted with the use of endoscopic methods in the 1990s and advanced robotic surgery since the early 2000s. In parallel with technological developments, surgical experience has increased and several cardiac operations are able to be performed using different mini-incisions.

Traditionally, most cardiac operations have been performed through a sternotomy incision. This has led to the expertise and knowledge of surgical anatomy and different approaches to the middle mediastinum. Access to the mitral valve through left anterior thoracotomy dates a few decades ago through which closed mitral commissurotomy was widely practiced. In the late 90s minimal access surgery was practiced in a few centers in the west which happened to be not very popular among surgeons those days. Since the mid- In the 1990s, minimally invasive cardiac surgery (MICS) rapidly gained popularity through pioneers in the field, such as F.J. Benetti and H. Vanermen. With technological advances and repeated research and development of instrumentation, minimal access surgery has gained a significant welcome among surgeons in this decade. Minimally invasive cardiac surgery provides reduced surgical trauma, less complication, a better rehabilitation period, as well as higher patient comfort and cosmesis without compromising safety and completeness.

Can all CABG,s be done? is a common question. The selection of patients is absolutely necessary before embarking.

Case:

A 55-year lady, breadwinner presented with unstable angina over a month. On evaluation, she needed two grafts for the left coronary system. As she had to resume work to make her daily living we used the left mini-thoracotomy approach to revascularize. She was extubated in 3 hrs time postoperatively and went home on day 5. After the first follow up she resumed her normal work without any restrictions, unlike the conventional sternotomy.



CABG - left anterior mini-thoracotomy

Surgeries by minimal access include the following:

- Atrial septal defect repair
- Ventricular septal defect
- Aortic valve replacements
- Mitral valve repair and replacement
- Coronary artery revascularization



A Rare Mimicker of AXIAL SPONDYLOARTHRITIS ANKYLOSING SPONDYLITIS



Dr. Madeshwaran Mani

MD, DM, (Rheumatology),
Consultant Rheumatologist

A 43-year-old male presented with complaints of low back ache and progressive symptoms of knee pain, and morning neck stiffness for around 15 years after multiple hospital visits he was diagnosed with spondyloarthritis elsewhere and treated with various disease-modifying antirheumatic drugs (DMARDs) and biological agents (Etanercept) and there was no response to the treatment. Subsequently, he sought numerous treatment options like Ayurveda which showed no improvement in his condition. Later, he came for evaluation with chronic pain in both knees, shoulders, neck, and difficulty in walking recently. Radiological investigations exhibit Normal sacroiliac joints whereas intervertebral disc calcifications were seen in the lumbar and thoracic spine defining the possibility of ochronotic osteoarthropathy.

Urine samples were sent for the analysis of homogentisic acid and tested positive, in concern of the past history of dark-colored urine stains since childhood told by the patient. Furthermore, to

rule out alkaptonuria, evaluation for pathogenic variations in the homogentisate 1,2- dioxygenase (HGD) gene is done and a likely pathogenic variant causative of the reported phenotype was detected.

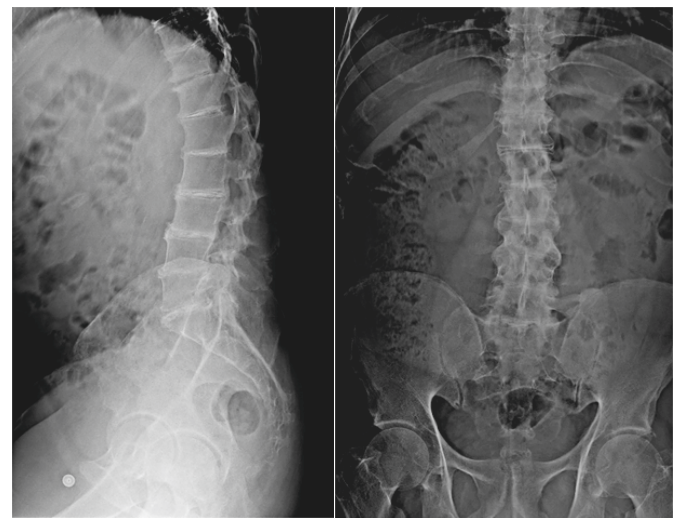


Image A shows intervertebral calcifications and Image B shows normal sacroiliac joints.

Gene* (Transcript)	Location	Variant	Zygoty	Disease (OMIM)	Inheritance	Classification ⁵
HGD (-) (ENST00000283871.10)	Exon 6	c.365C>T (p.Ala122Val)	Homozygous	Alkaptonuria (OMIM#203500)	Autosomal recessive	Likely Pathogenic

For further management, ascorbic acid was given to treat ochronotic osteoarthropathy. Hence, this case highlights the importance of awareness regarding Ochronosis (Alkaptonuria). In conclusion, misdiagnosis of the disease can lead to increased morbidity and therapy-related complications.

Keywords: Spondyloarthritis, Ochronotic osteoarthropathy, Alkaptonuria, HGD gene.



பசுமை



விகடன்

இயற்கைக்கு திருப்பி
வழங்கும் நேரமிது...

100 மாதங்களில், 10 கோடி மரங்கள்!

அந்தச் சிறுவனுக்கு பத்து வயது இருக்கும். ஒருநாள் சித்தோடு கிராம முன்சீப் ஆக இருந்த தன் தந்தையிடம், ஊரில் மரங்கள் வெட்டப்படுவது குறித்து சிலர் வேதனை தெரிவித்துக் கொண்டிருந்தனர். இப்படியே போனா நம்ம ஊரு பாலைவனம் ஆயிடுமே!' என்று யாரோ சொல்ல, அங்கிருந்து பற்றிக்கொண்டது சிறுவனின் மனதில் அந்த நெருப்பு.

'மரங்கள் நட வேண்டும், பூமியைக் காக்க வேண்டும்' என்ற அந்தச் சிறுவனின் கனவு இன்று '10 கோடி மரங்கள், 100 மாதங்களில்' எனும் முயற்சியாக வளர்ந்து நிற்கிறது. அந்தச் சிறுவன்தான் கோவை ராயல் கேர் சுப்பர் ஸ்பெஷாலிட்டி மருத்துவமனையின் நிறுவனர் மற்றும் நரம்பியல் நிபுணர் டாக்டர் க. மாதேஸ்வரன்.

உயிரின் சுவாசம்...

மேற்கு தொடர்ச்சி மலை என்பது இயற்கையின் கொடை. அந்தப் பொக்கிஷம் இருப்பதால்தான் கோவை, திருப்பூர், சேலம், ஈரோடு, நாமக்கல், கரூர், நீலகிரி உள்ளிட்ட மாவட்டங்கள் இயற்கை வளத்துடன் காணப்படுகின்றன. அந்தப் பகுதி மக்கள் அனைவரின் மனதிலும் மேற்கு தொடர்ச்சி மலைகளோடு ஆழமானதொரு பந்தம் இருக்கிறது. இயற்கையாவே பசுமையைக் காக்க வேண்டும் என்ற எண்ணம் இருக்கிறது.' என்கிறார் டாக்டர் மாதேஸ்வரன்.

'இயற்கை ஆதாரங்களை அழிப்பதால் புவி வெப்பமயமாதல், கடல் நீர் மட்டம் உயர்தல், மாறி வரும் பருவங்கள் என பல்வேறு பிரச்சனைகள். இவை இயற்கையின் எச்சரிக்கை மணியாகும். பெரும் ஆற்றல் மிக்க இயற்கையோடு நம்மால் போராடி வெல்லவே முடியாது. அதனுடன் அரவணைத்துச் சென்றால் இன்பமாக இருக்கப்போவது நாம்தான்.'

10 கோடி மரங்கள் !

'மாறி வரும் தட்பவெட்பத்துக்கு நம்மால் ஆன பங்களிப்பைத் தர வேண்டும் என்கிற நோக்கத்துடன் ஆரம்பிக்கப்பட்டதே உயிரின் சுவாசம் அறக்கட்டளை. 2018-ஆம் ஆண்டு தொடங்கி 2022ஆம் ஆண்டிற்குள் 2 கோடி மரங்கள் நட திட்டமிட்டோம். கோரோனாவால் பல சிக்கல்கள் ஏற்பட்டன. தற்போது நிலைமை சீராகி இருப்பதால், அடுத்த 100 மாதங்களில், 10 கோடி மரங்களை மேற்கு தொடர்ச்சி மலை அருகேயுள்ள மாவட்டங்களில் நட திட்டமிட்டுள்ளோம்.



இந்தத் திட்டத்தின் முதல் பகுதியாக, 2023 ஆகஸ்ட் 15-ற்குள் 15-30 லட்சம் விதைகள், 1.5 லட்சம் மரக்கன்றுகள் வழங்கவுள்ளோம். இதில் 1 லட்சம் பனங்கொட்டைகள் அடங்கும். விதைகள் அடங்கிய பைகளை ஆறு, குளம், மயானம் போன்ற பகுதிகளில் வைப்பதன் மூலம் மரம் வளரும் வாய்ப்பை அதிகப்படுத்த திட்டமிட்டுள்ளோம்.

மேற்கு தொடர்ச்சி மலைக்கு அருகேயுள்ள நூற்றுக்கணக்கான ஊர்களில், நிழல் மரங்கள், பூ மரங்கள், டிம்பர் மரங்கள், பழ மரங்கள் மற்றும் ஸ்தல மரங்களை வைத்து வளர்த்து வருகிறோம். கோவை பட்டணம், காட்டம்பட்டி, செண்பகாபுதூர்,

**மரம் வளர்ப்போம்,
மாற்றத்தை விதைப்போம்...**

சத்தியமங்கலம், காடம்பாடி, குப்பம்பாளையம் உள்ளிட்ட நூற்றுக்கணக்கான இடங்களில் மரங்கள் நடப்பட்டு பராமரிக்கப்பட்டு வருகின்றன. 2018 ஆம் ஆண்டு முதல் கோவை ராயல் கேர் மருத்துவமனையில் இலவச மரக்கன்றுகளை தேவைப்படுவோருக்கு வழங்கி வருகிறோம்.



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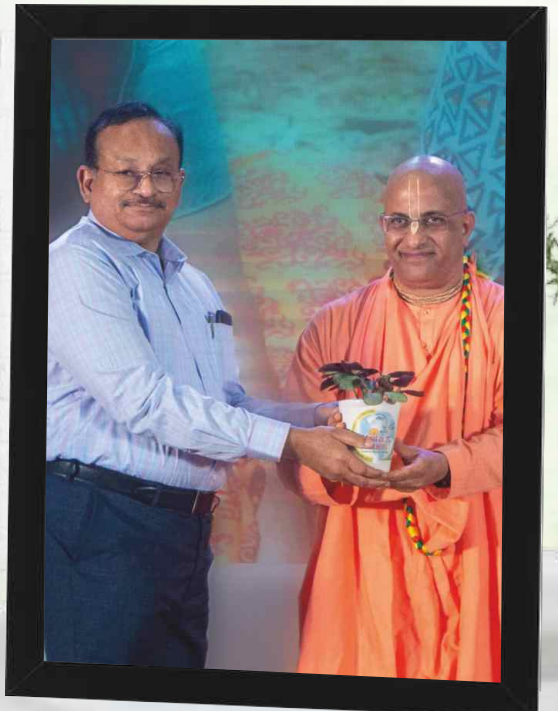


"இயற்கை காவலன் விருது"

ராயல் கேர் மருத்துவமனை தலைவர் மற்றும் உயிரின் சுவாசம் அறக்கட்டளை நிறுவனர் **Dr.K. மாதேஸ்வரன்** அவர்களுக்கு தமிழ்நாடு ஓய்வுபெற்ற அரசு ஊழியர் சங்கம் கோவை மாவட்ட மையம் சார்பாக "இயற்கை காவலன்" விருது வழங்கி கௌரவிக்கப்பட்டது

Gitathon'22

Dr.K.Madeswaran - Founder of Uyirin Suwasam Trust received Award for his contribution to nature, from **Mr. HH. Bhakti Vinoda Swami - Trustee ISKCON**, at Gitathon'22 Program held at Coimbatore.





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DR. M. N. SIVAKUMAR

MBBS, DA, DNB, IDCCM, EDIC, FICCM.,
Head - Institute of Critical Care Medicine

Dr. M.N. Sivakumar has been elected as
an **Executive Member of the Society of
Neurocritical Care (SNCC-INDIA)**



Welcomes...



Dr. Shiva Kumar Kuppuswamy

MBBS, MS(Gen.Surg), MCh(Surgical Onco),
Consultant Surgical Oncologist

Completed his MBBS in 1999 from the prestigious Mysore University he undertook comprehensive training at Bangalore in MS General Surgery and MCh Surgical Oncology from the renowned Rajiv Gandhi University of Health Sciences in Bangalore. He worked as a Consultant Surgical Oncologist in PSG Super-specialty Hospital, Coimbatore before joining our Royal Care.



Dr. P. Veena Shankari MBBS, MD (Radiodiagnosis),

Post-Doctoral Fellow in Breast Imaging and Intervention
Consultant Radiologist

Completed her MBBS in 2013 from PSG Institute of Medical Sciences & Research, Coimbatore and she did her M.D. (Radiodiagnosis) from Amrita Institute of Medical Sciences, Edapally, Cochin in the year of 2017. Also, she completed a Post-doctoral Fellowship in Breast imaging and intervention from Sri Ramachandra Institute Of Higher Education And Research, Chennai. She worked as a Clinical Fellow in the same Institution and now she joined as Consultant Radiologist at our Royal Care.



Dr. Vijay Kumar Manda MBBS, MD(PMR),

Consultant Physiatrist

Completed his MBBS from Andhra Medical College, Visakhapatnam, Andhra Pradesh in 2008. Also completed his MD (Doctor of Medicine) in PM&R from Christian Medical College, Vellore in 2015 and worked as a PM&R consultant in Raxaul, Bihar for a few years. He designed the PGDRM course from CMC Vellore and worked as an academic faculty for the same before joining Royal Care. Now he joined as a Consultant Physiatrist at our Royal Care.



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