

Honorary Editor :
Dr. Tejas V. Patel



From the Desk of Hon. Editor:

43 yrs old Businessman, presented a year ago with acute ischemic stroke (right MCA territory). He was successfully thrombolysed with IV tPA. He recovered well and was able to resume his work. In subsequent 5 months he had two episodes of transient ischemic attack (TIA). His carotids were normal without any significant stenosis. Routine ECG & ECHO were normal. Routine blood tests didn't show any abnormalities. How should this case be further evaluated? My friends, I am sure you must have faced this kind of clinical situation where etiology of recurrent stroke remains an enigma, and the management remained unclear. Let's briefly have discussion of this important clinical scenario.

CRYPTOGENIC STROKE

INTRODUCTION

In its most useful clinical sense, the term cryptogenic stroke (CS) designates the category of ischemic stroke for which no probable cause is found despite a thorough diagnostic evaluation. It is defined as cerebral ischemia of obscure or unknown origin. Large epidemiologic studies have consistently reported that cryptogenic stroke accounts for 25 to 40 % of ischemic stroke (almost one third of the ischemic strokes). CS is more frequent in younger than older patients.

Most cryptogenic strokes are likely embolic of undetermined source. The criteria for ESUS (embolic stroke of undetermined source) are:

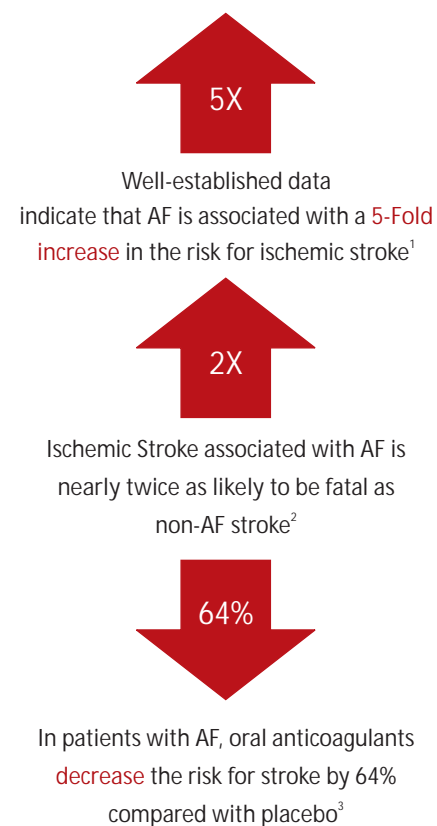
- Stroke detected by CT or MRI that is not lacunar
- Absence of atherosclerosis causing 50% luminal stenosis of the artery supplying the area of ischemia
- No major-risk cardioembolic source of embolism (like- no permanent or paroxysmal atrial fibrillation, intra-cardiac thrombus, prosthetic cardiac valve, mitral stenosis, left ventricular ejection fraction <30%, valvular vegetations, or infective endocarditis)

- No other specific cause of stroke identified (eg, arteritis, dissection, migraine, vasospasm, drug abuse)

ETIOLOGY / MECHANISM

- Embolism from occult sources in the heart or aorta
 - Occult Paroxysmal atrial fibrillation
 - Atrial septal abnormalities: PFO, atrial septal aneurysm, and atrial

RISK FOR STROKE IN PATIENTS WITH AF



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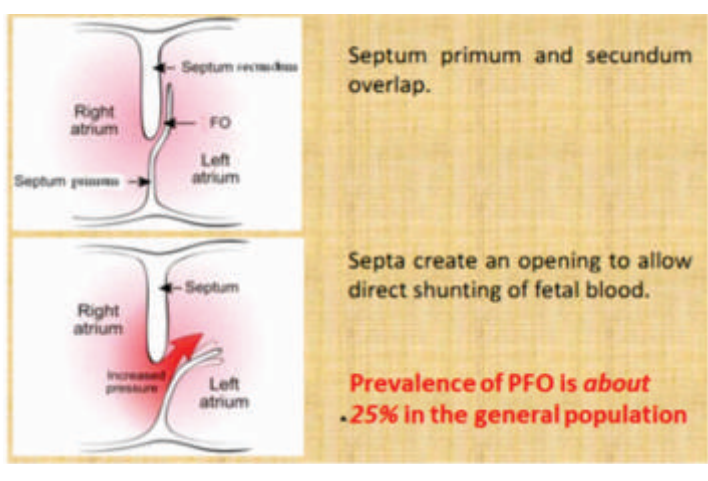
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Neonatologist and Paediatric Intensivist

Dr. Amit Chitaliya (M) +91-90999 87400
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PATENT FORAMEN OVALE



septal defect [Paradoxical embolism]

- Aortic Arch Atheroma
- Undefined thrombophilia (hyper-coagulable states - antiphospholipid antibodies or occult malignancy)
- Substenotic cerebrovascular disease (<50%)

CLINICAL PRESENTATION

- Stroke with embolic infarct topography on brain imaging (Cortical or large subcortical infarcts)
- Recurrent stroke
- Multiple territory involvement (shower of embolization)

EVALUATION & DIAGNOSIS

- Cryptogenic stroke is a diagnosis of exclusion
- Standard evaluation
 - Brain imaging: CT, MRI (Cortical or large subcortical infarcts in multiple vascular territories)
 - Vessel imaging: MRA, CTA, Doppler
 - Cardiac evaluation: ECG, TTE, TEE
 - Blood tests
- Special evaluation
 - Prolonged cardiac monitoring: 24- or 48-hour Holter monitors, ambulatory ECG, ILR
 - Contrast ECHO: Intracardiac shunt (occult PFO), Extracardiac shunt (Pul AV fistula)
 - Cardiac MRI: Isolated left ventricular non-compaction

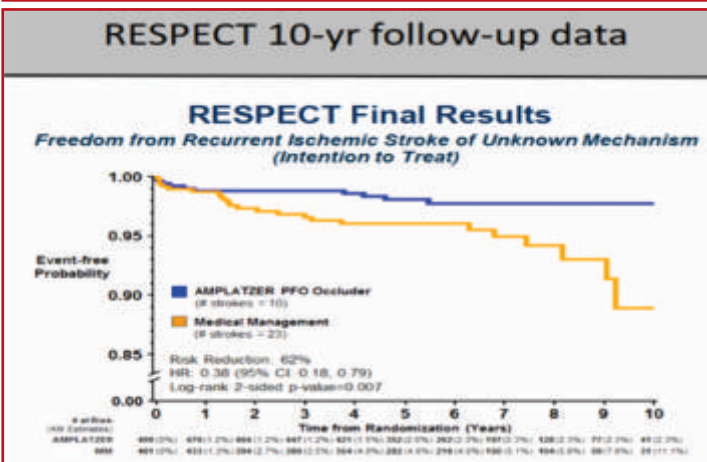
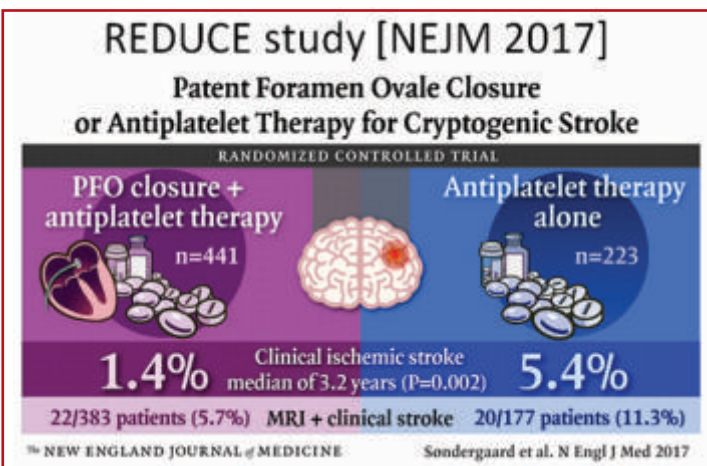
MANAGEMENT – SECONDARY PREVENTION

*If documented Atrial Fibrillation or thrombus in LA/LA appendage: Oral anticoagulation (OAC) – Warf or NOACs

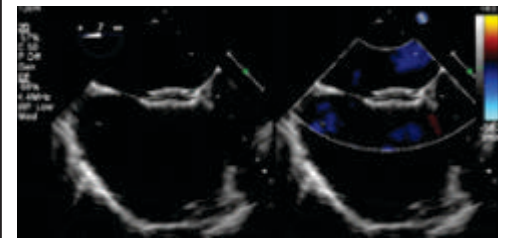
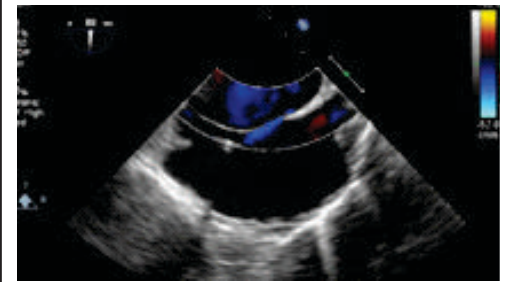
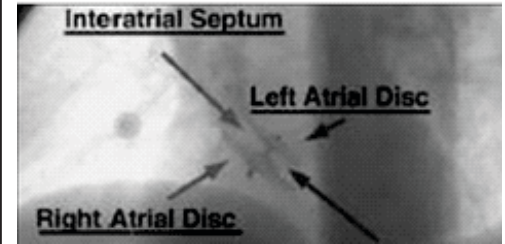
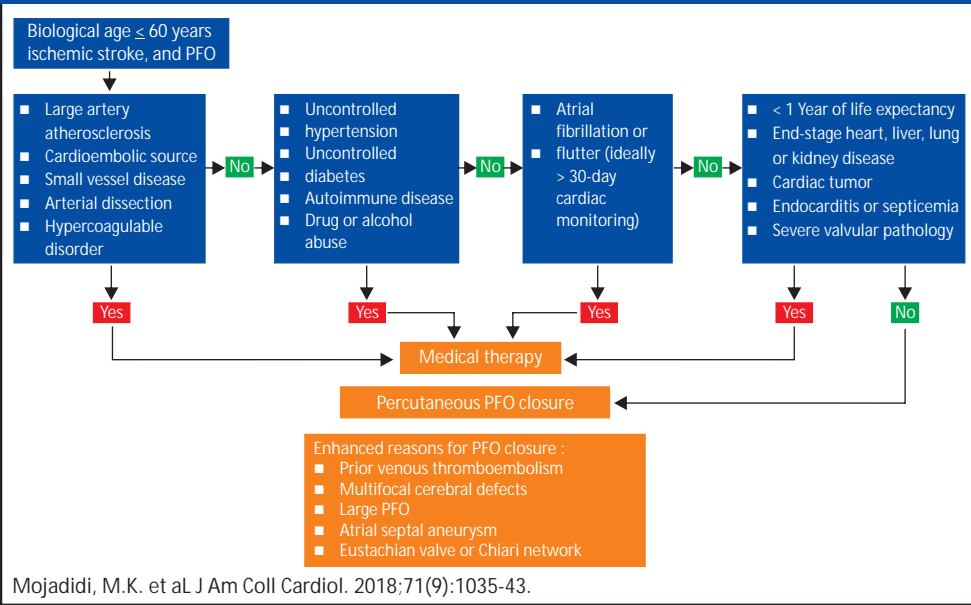
*If no documented Atrial Fibrillation or thrombus: As per

WARSS study, role of OAC is controversial. But empirical Warf or NOACs can be considered in - 1) High CHA2DS2-VASc score, 2) Presence of cortical or large subcortical infarcts in multiple vascular territories, 3) Evidence of left atrial cardiopathy (eg. left atrial dilatation, strain).

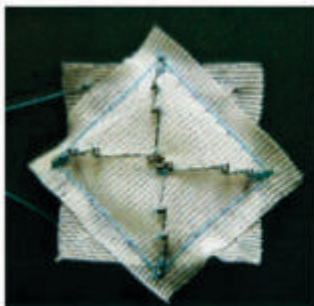
*Cryptogenic stroke & PFO: PFO closure may be considered for patients with recurrent Cryptogenic Stroke despite optimal medical therapy [Class IIb, Level of Evidence: C – AHA/ASA guidelines]. A meta-analysis of patient-level data from CLOSURE I, PC, and RESPECT studies shown that PFO closure was superior to medical therapy for the prevention of recurrent ischemic stroke. In the last year, two new randomized controlled trials of PFO closure versus medical therapy were published: CLOSE and REDUCE. At conclusion, PFO closure is of moderate benefit compared to antiplatelet therapy alone in the prevention of recurrent ischemic stroke in adults up to 60 years of age. It remains unknown how PFO closure compares to systemic anti-coagulation (e.g., with NOACs) for the prevention of recurrent ischemic stroke.



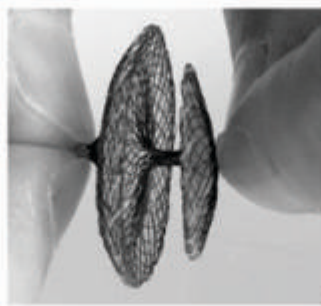
CENTRAL ILLUSTRATION : Evidence - Based Algorithm for PFO Closure in Ischemic Stroke Patients for Highest Clinical Yield, Based on Randomized Trials



PFO OCCLUDER DEVICE:



Starflex



Amplatzer

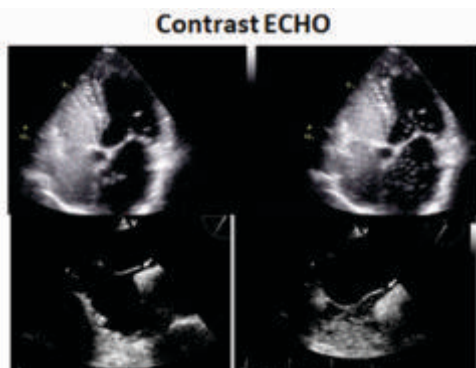


Gore Cardioform Septal Occluder

COMING BACK TO OUR CASE...

The patient was referred to me by one of my Neurologist friend.

Recheck TTE was normal. Ambulatory



Contrast ECHO

ECG (7days) was normal (no Atrial fibrillation).

Contrast ECHO & Trans-esophageal ECHO (TEE) picked up PFO.

We did PFO closure with Amplatzer device. The procedure is very similar to ASD device closure.



CONCLUSION

Cryptogenic stroke accounts for 25-40% of ischemic stroke. It is a diagnosis of exclusion. Look for 2 most imp cardiac causes: 1) Occult paroxysmal atrial fibrillation and 2) Paradoxical embolism via PFO. The clinical evidence is strong in favour of trans-catheter PFO closure in reducing the risk of recurrent stroke in young patients (age <60 years) suffering with cryptogenic stroke.

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Gold Medalist

Interventional Cardiologist

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CIMS Learning Centre

Skills Development Centre

DIABETES & ENDOCRINOLOGY

September 02, 2018 (Sunday)

Course Director : Dr. Vivek Patel
 Duration : 1 day
 Number of Seats : 50
 Venue : CIMS Auditorium

Programme Overview:

Endocrinology is a complex specialty that encompasses a wide range of disorders. The field of endocrinology is now moving towards an increasingly personalized approach to patient management. This symposium will provide a problem-orientated approach to the management of clinical problems in endocrinology.

Programme Highlights:

- Diabetes management in special populations: elderly, CKD, CLD
- Gestational diabetes mellitus
- Diabetic foot management: newer therapeutic options
- Management of diabetic ketoacidosis: what NOT to do?
- Common mistakes in interpretation of thyroid function tests
- Approach to patient with hyperprolactinemia
- Management of osteoporosis: beyond bisphosphonates
- Iatrogenic Cushing's Syndrome: how to stop steroids when no longer needed?

Online registration & payment on www.cims.org/clc

Registration Fees: ` 500/- | Spot Registration Fees: ` 1,000/-

Non-refundable

For any query, please email on : clc@cimshospital.org

> Certificate of attendance will be given at the end of the course.

ART OF CLINICAL CARDIAC EXAMINATION : REVISITED

September 09, 2018 (Sunday)

Course Directors : Dr. Milan Chag / Dr. Satya Gupta
 Dr. Vipul Kapoor / Dr. Tejas V Patel
 Duration : 1 day
 Number of Seats : 50
 Venue : CIMS Auditorium

Programme Overview:

Art of clinical examination is not forgotten in current era! Let us rewind history as it is a must for clinical assessment of any patient. Let us learn the cardiovascular part of history-taking and clinical examination before we go ahead with other diagnostic modalities.

Programme Highlights:

- History taking
- Pulse
- JVP
- General examination
- Inspection and palpation
- Apical impulse
- X-ray chest

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FEVER CLINIC

Got these signs ?



DENGUE

Signs & Symptoms

- High Fever
- Muscle & Joint pains
- Pain behind the eyes
- Diarrhea & Vomiting
- Skin Rashes



MALARIA

Signs & Symptoms

- Diarrhea & Vomiting
- Sweating
- Headache
- Nausea
- Abdominal Pain
- Shaking Chills - High Fever
- Chills and Rigors



CHIKUNGUNYA

Signs & Symptoms

- Fever
- Joint Pains
- Muscle Pains
- Headache
- Nausea



SWINE FLU (H1N1 INFLUENZA)

Signs & Symptoms

- High Fever
- Bodyache
- Headache and Malaise
- Cough and Cold
- Sore Throat
- Diarrhea
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Complications could occur due to Swine Flu and could involve different organs such as Lung injury, Pneumonia, Kidney Failure, Brain Infection, etc.

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PROGRAM AT A GLANCE

DAY 1

JANUARY 4, 2019, FRIDAY

Internal Medicine Symposium

Satellite Session

- An Evening of Pharmacology & Therapeutics-I
- An Evening of Pharmacology & Therapeutics-II
- An Evening of Cardiology Guidelines (15 Points to Remember for Physicians)
- Cardiology Guidelines

DAY 2

JANUARY 5, 2019, SATURDAY

Main Session

- Introduction Session
- Coronary Artery Disease / Acute Coronary Syndrome
- Interventional Cardiology
- All You Need to Know: Valvular Heart Disease / Hypertension
- Stroke / Hypertension
- Clinical Case Based Approach : Hypertension Lipids & Cardiovascular Risk Management

Satellite Session

- STEMI (Case Based Session)
- Hypertension (Case Based Session)
- Heart Failure / ECMO-LVAD (Case Based Session)
- Lipid & CV Risk Management

Oncology

DAY 3

JANUARY 6, 2019, SUNDAY

Main Session

- | | |
|---------------------------------|---|
| ■ Interactive ECGs / Arrhythmia | ■ CIMS JIC Oration |
| ■ Arrhythmia & Heart Failure | ■ Plenary Lectures |
| ■ Clinical Cases | ■ Live Case Session – Case Presentation |
| ■ Case Presentations | |

Oncology

Neuro

Critical Care in Chronically ill

Endocrinology

IVF & Gynaec

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