



HEARTTALK

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Volume 8

KDN No.: PPK434/04/2013 (032273)

Dec 2013



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Message From Editor

Greetings from Sarawak Heart Foundation!

The second half of 2013 for SHF has been punctuated with a number of activities.

The Foundation started the second half of the year with the eminent visiting doctors' program at SGH Heart Centre. Thereafter, the Foundation organized a Public Health Screening at the newly minted shopping mall, Summer Shopping Mall at Kota Samarahan on 17 August 2013 and another Public Health Screening at Sri Aman on 19 October 2013. As usual, the response to these events was overwhelming to say the least. These events would not be made possible without the support from the nurses and doctors from the Sarawak General Hospital Heart Centre.

This was then followed by celebration of World Heart Day 2013 with the theme of "Take the road to a healthy heart". The event this year was again organized jointly with Heart Centre on 29 September 2013 at Lakeside, Pustaka Negeri Sarawak. Our guest-of-honour, YAB Pehin Sri Haji Abdul Taib Mahmud, Chief Minister of Sarawak and Chairman of the Sarawak Heart Foundation flagged off the participants for our signature "Walk-a-Mile".

On 17 November 2013, the Sarawak Heart Foundation with the Rotary Clubs in Pan Borneo sponsored the Mini Garden at SGH Heart Centre, Kota Samarahan in order to provide a green and relaxing environment for patients and staff.

For the 1st half of 2014, the Foundation will tentatively organize a fund-raising dinner to raise RM3 million of the purpose of acquisition of -invasive heart surgical equipment for the SGH Heart Centre and also the running of the Foundation's future programs. I hope that all the corporate sectors in Sarawak will rise to the occasion once again and support the Foundation's fund-raising dinner.

The 2014's Heart Week will tentatively be held in Sibu from 20 June 2014 to 23 June 2014. As usual, this event will be in collaboration with Yayasan Jantung Negara and Sarawak General Hospital. Do keep a lookout for this event by calling our office or the Foundation's website at sarawakheartfoundation.org.my.

I would like to take this opportunity to wish you all a Happy New Year 2014 and for those who will be celebrating the Chinese New Year, "GONG XI FA CHAI"!!

Eric Lim Swee Khoon
Editor

SHF Eminent Visiting Doctors' Program @ SGH Heart Centre



WORLD HEART DAY 2013

ON 29 SEPTEMBER 2013

AT SARAWAK STATE LIBRARY, PETRA JAYA,
KUCHING, SARAWAK



This year the World Heart Day was celebrated on 29 September 2013 at the Sarawak State Library, Petra Jaya, Kuching. This event was organized by the Sarawak Heart Foundation in collaboration with SGH Heart Centre.

Prof. Dr. Sim Kui Hian, Board of Trustee delivered the speech on behalf of the organizing Chairperson, YBhg. Dato Hajjah Jamilah Anu.

The activities for the day included Charity Walk-A-Mile, free health screening, physical performances likes aerobic, attractive lucky prizes and games. Booths had also been set-up to sell various tools and equipment for living a healthy lifestyle.

Many enthusiastic people from all walks of life came to register. A free health Nestle Omega breakfast was provided by Nestle Products Sdn Bhd, one of our main sponsors and our partner for the Charity Walk-A-Mile.



YAB Pehin Sri Abdul Taib Mahmud, Chief Minister of Sarawak and Chairman of Sarawak Heart Foundation was the Guest-of-Honor. When launching the World Heart Day, YAB Pehin Sri said in his speech that walking was the best way of a healthy lifestyle as it stimulated the heart. YAB Pehin Sri also expressed concern on the lack of physical activity among the people especially the children who preferred to exercise only their fingers playing computer games and urged the parents to encourage their children to exercise through walking.

There were a total of 1600 participants registered for the Charity Walk and many people from nearby neighbourhood came to participate also.



ATRIAL FIBRILLATION

QUESTIONS & ANSWERS

by Dr Cham Yee Ling, MD, MRCP (UK)
Cardiologist
Sarawak General Hospital Heart Center

What is atrial fibrillation?

Atrial fibrillation is a disorder of heart rhythm characterized by irregular heart beats. It is the commonest type of rhythm disorder, affecting 1 in 100 people worldwide.

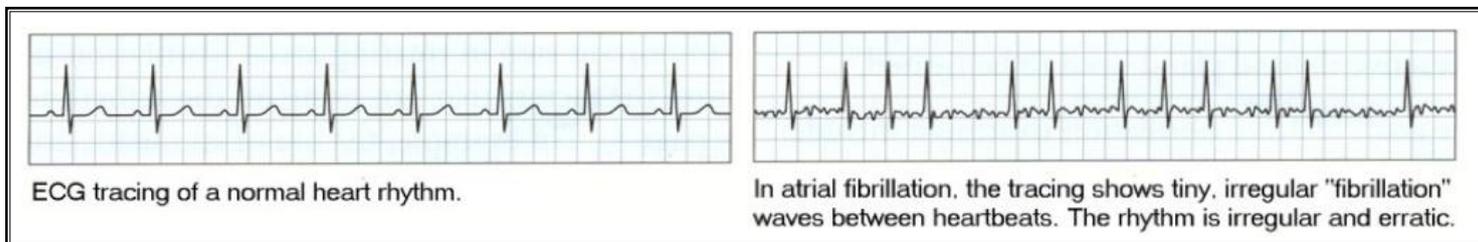


Figure 1. Electrocardiogram (ECG) tracings of normal heart rhythm and atrial fibrillation (Source : a-fib.com)

How does it happen?

The heart consists of 4 chambers : the upper chambers known as the left and right atria, and the lower chambers known as the left and right ventricle.

Heart muscle contraction, which you perceive as a heart beat, originates from a single location in the right atrium known as the sinus node. The sinus node behaves like a generator, producing electrical impulses that pass through the atrio-ventricular node located at the junction between the atria and ventricles, which then travel along conducting pathways in the ventricles. These signals are usually produced in a rhythmic and regular manner, stimulating the heart muscle to contract in an organized fashion.

In atrial fibrillation, electrical signals arise from several locations in the heart, resulting in multiple impulses fighting to get through the atrio-ventricular node. These dysynchronized impulses result in disorganized contraction of the atria, and they are said to quiver, or fibrillate.

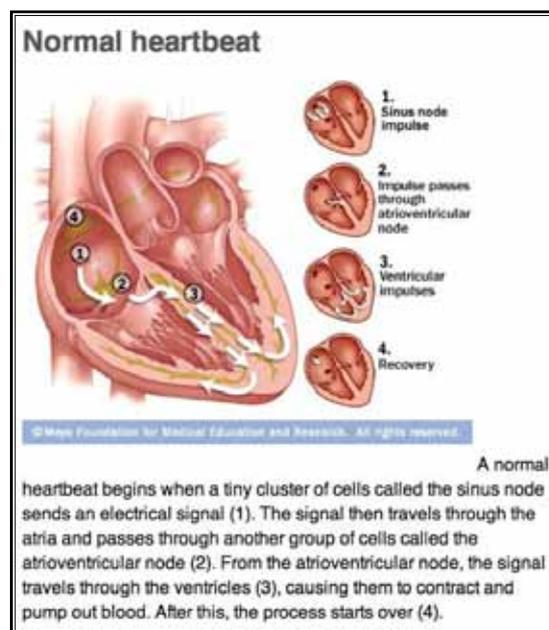


Figure 2. The electrical pathway in a normal heartbeat (Source : Mayo Clinic)

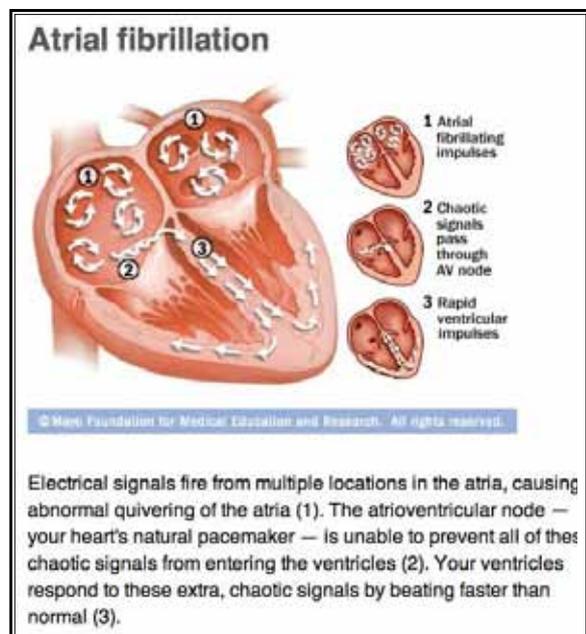


Figure 3. The electrical pathway in atrial fibrillation (Source : Mayo Clinic)

Some of these impulses pass through the atrio-ventricular node, causing irregular contractions of the ventricles.

What causes atrial fibrillation?

Atrial fibrillation is associated with these cardiac conditions:

- Hypertension
- Coronary artery disease
- Valvular heart disease
- Heart failure

Other non-cardiac causes include thyrotoxicosis, infections, certain drugs and electrolyte imbalances.

It can also occur in people without any detectable cause.

What are the symptoms?

The symptoms of atrial fibrillation are due to irregularity of heartbeats, rapid heartbeats and decrease in the amount of blood pumped out of the heart, and include:

- Palpitations
- Chest pain
- Lightheadedness and faintness
- Shortness of breath
- Tiring easily

How is atrial fibrillation diagnosed?

An irregular pulse should lead to the suspicion of atrial fibrillation. An ECG will confirm the diagnosis. In some cases where the atrial fibrillation occurs intermittently, an ambulatory 24-hour ECG monitoring may be required to capture the abnormal rhythm.

What is the treatment?

The 2 aspects of treatment in atrial fibrillation are :

- Control of heart rhythm (“rhythm control”)
- Control of heart rate (“rate control”)

A rhythm control strategy implies restoration of sinus rhythm. This can be achieved through the use of drugs, electrical shock to the heart, surgical or catheter ablation.

A rate control strategy makes use of drugs to keep the heart rate within an acceptable range. The abnormal rhythm will however persist.

Your doctor will be able to advise you on the most appropriate treatment strategy.

How is atrial fibrillation linked to stroke?

In atrial fibrillation, there is a risk of blood clot forming in the heart due to the quivering motion of the atria. When such a clot travels out of the heart - a process known as thromboembolism - and into the brain circulation, it can cause blockage of an artery in the brain, resulting in stroke.

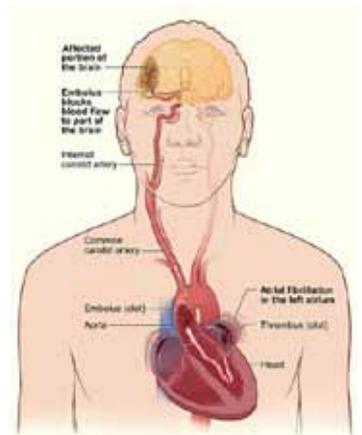


Figure 4. How atrial fibrillation causes stroke (Source : National Heart, Lung and Blood Institute)

How can stroke associated with atrial fibrillation be prevented?

Stroke prevention can be achieved through the prevention of thromboembolism. Thromboembolism can be prevented with anti-clotting (“anticoagulation”) therapy.

Does everyone with atrial fibrillation require anticoagulation therapy?

No. The need for anticoagulation will depend on your risk score based on the following parameters :

- Diabetes mellitus
- Hypertension
- Heart failure
- History of stroke or thromboembolism
- Age
- Gender
- Vascular disease



Figure 5. Atrial fibrillation treatment plan (Source : American Heart Association and American Stroke Association)

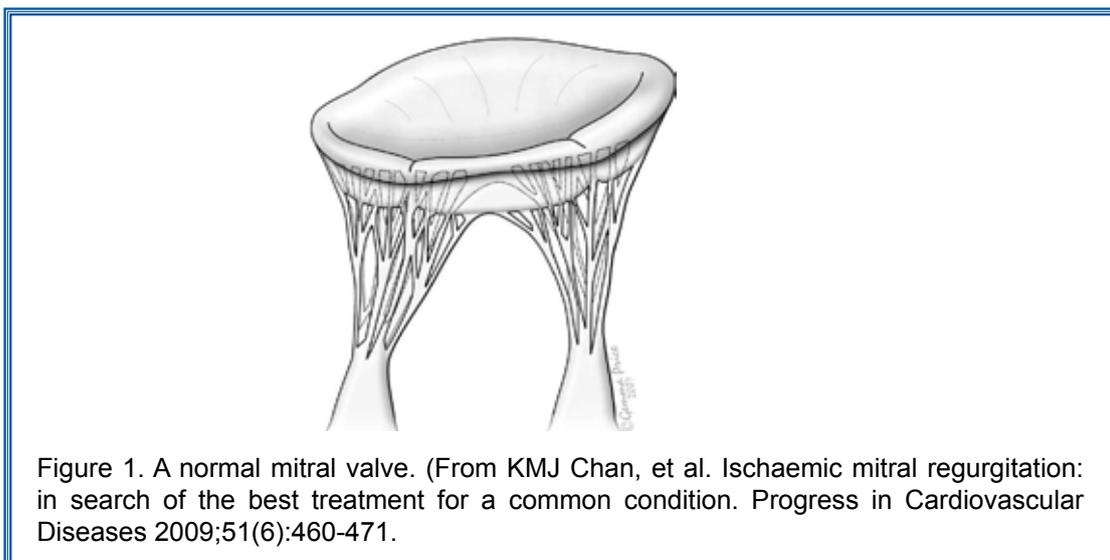
Summary

Atrial fibrillation is the most common type of heart rhythm disorder. It carries an increased risk of developing stroke if left untreated.

MITRAL VALVE DISEASE IN SARAWAK

John Chan Kok Meng
FRCS CTh, Consultant Cardiothoracic Surgeon,
Sarawak General Hospital Heart Centre

The heart has four valves in it which ensures that blood flows in one direction through it – the aortic valve, the mitral valve, the tricuspid valve and the pulmonary valve. The function in any of these valves can be affected by disease causing them to be narrowed (mitral stenosis) or to leak (mitral regurgitation). In our population in Sarawak, the most common valve affected by disease is the mitral valve which separates the heart from the lungs. The mitral valve has got two leaflets (like a set of double doors) attached to an annulus (or door frame), and supported by chords (Figure 1).

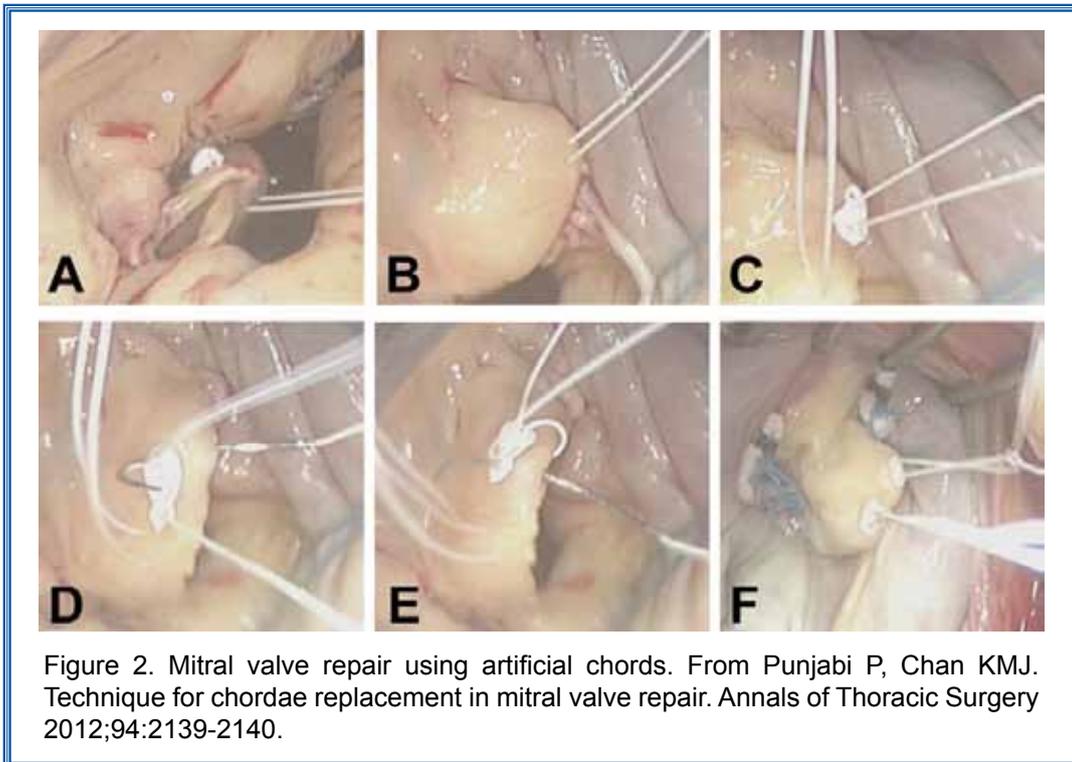


The most common condition causing mitral valve disease in Sarawak is rheumatic heart disease. This occurs following infection with a bacteria called beta haemolytic streptococcus which causes rheumatic fever. The mitral valve becomes inflamed and with time it becomes thickened and the leaflets fuse together and eventually calcium deposits on it. Rheumatic heart disease is very rare in Western developed countries due to the widespread use of antibiotics. However, it is still seen in a lot of patients in Sarawak particularly those in the rural areas. In Western developed countries, mitral valve disease is commonly due to degenerative valve disease, i.e. the structures supporting the mitral valve is weakened with age and ruptures causing the mitral valve to leak. The mitral valve may also be abnormal due to excessive size of the leaflets which prevents them from closing properly, a condition which is inherited.

Blood normally flows from the lungs, where it receives oxygen, to the heart, where it is then pumped to the rest of the body. When the mitral valve fails to open normally, a condition called mitral stenosis, blood from the lungs is unable to enter the main heart chamber to be pumped to the rest of the body. As a result, the lungs become congested and patients feel breathless and also lethargic as the rest of the body is not receiving the blood which it needs. Similarly, when the mitral valve fails to close normally and is leaky, a condition called mitral regurgitation, blood from the main chamber of the heart, which is normally pumped out to the rest of the body, returns to the lungs instead. These patients also feel breathless and lethargic. In addition, the heart enlarges in an attempt to maintain the flow of blood to the rest of the body. Initially the patient may not feel any symptoms as the enlarged heart is able to maintain flow to the rest of the body. However, an enlarged heart is not a good sign as the heart itself now requires more blood and oxygen for itself and will gradually fail.

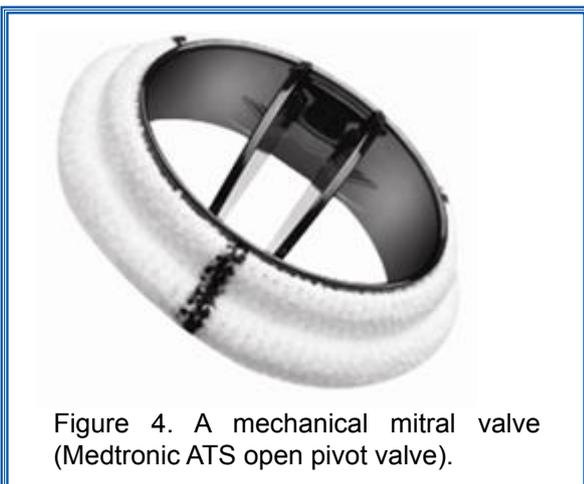
Patients with severe mitral regurgitation (leaky valves) generally require surgery to either repair or replace the diseased mitral valve. If the mitral valve is degenerative and is not due to rheumatic

heart disease, it can usually be repaired successfully with good long term results. Artificial chords are used to replace the ruptured mitral valve chords and if there is excessive leaflet tissue, it can be resected (Figure 2). If the mitral regurgitation is caused by rheumatic heart disease, it is generally more challenging to repair it and the long term results are not as good as for degenerative mitral valve disease. In such valves, it may be preferable to replace the mitral valve with a new valve.



Patients with severe mitral stenosis (narrowed valves) can be treated by balloon dilatation in the early stages. This is done through a catheter inserted into an artery in the groin from where it is advanced up to the heart. This can only be done if the valve is not too calcified and is not leaking. More advanced disease will require open heart surgery and in most cases, the mitral valve is replaced with a new valve.

If the mitral valve needs to be replaced, two types of valves can be used: a mechanical (metal) valve or a tissue (animal) valve (Figures 4 and 5). A mechanical valve will usually last the lifetime of the patient but requires the patient to take a medication called warfarin. This medication thins the blood down and prevents the mechanical valve from clotting and being blocked off. Patients on this medication require regular blood checks to ensure the correct level of the medication as too high a level would cause bleeding while too low a level would put the valve at risk of clotting. A tissue valve does not last as long as a metal valve but has the advantage that it does not require long term blood thinning medications. A metal valve is generally favoured when the mitral valve needs to be replaced except in elderly patients and younger women of child bearing age in whom a tissue valve may be advantageous.



Launching of Mini Garden at SGH Heart Centre on 17 November 2013



The garden is a joint-project by Sarawak Heart Foundation and Rotary Clubs in Pan Borneo so as to provide a green and relaxing environment for patients and hospital staff.



Prof. Dr. Sim Kui Hian, SHF Trustee gave a heart talk to the Rotarians Pan Borneo @ Auditorium, SGH Heart Centre

18/8/13



Health Screening & Breast Awareness Campaign @ The Summer Shopping Mall

5/9/13



Donation of Treadmill, Cross Trainer & Upright Bike To Gymn, SGH Heart Centre

13/9/13



Opening of Outlet 2 @ SGH Heart Centre

19/10/13



Health Screening @ Sri Aman

23/11/13



Donation of RM2,000.00 to Malaysian Red Crescent, Serian Chapter for Health Screening @ Kpg Bunan Gega, Serian

7/12/13



Invitation by Lions Club Serian For Health Screening & Blood Donation @ Community Hall, Serian

Up Coming EVENTS

- 8/3/14 WOMENS' HEART DAY @ PLAZA MERDEKA KUCHING
- 8/3/14 FUND-RAISING DINNER BY SABATI / SHF @ PULLMAN HOTEL KUCHING
- 20/6/14 - 22/6/14 SIBU HEART WEEK



SARAWAK HEART FOUNDATION
(383498-P)

"FRIEND OF THE FOUNDATION" FORM

HOW CAN YOU HELP?

If you are someone who is caring and would like to help Sarawak Heart Foundation, you can register as a "Friend of the Foundation" (as a volunteer to help in the various projects undertaken by the Foundation from time to time and especially with fund-raising)

Passport
Size

Please fill in the below and send to us.

Thank You.

Full Name :

IC/ No. :

Address :

Tel. No. : Fax No. :

E-Mail : H/P No.:

Date :

Please specify how you can help? (eg. driver, food runner, general worker, exercise instructor, dancer, mc, photographer etc.)

Sarawak Heart Foundation

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SARAWAK HEART FOUNDATION
(383498-P)

DONATION FORM

Full Name :

Address :

Tel. No. : Fax No. E-Mail

PAYMENT

[] Cheque No. For RM

[] Bank Draft For RM

For Direct Remittance, please bank into **RHB Bank A/C No. 21104350033342**

(Please fax or email the bank-in slip to Fax: 082-258303)

Email: sarawakheartfoundation8@gmail.com

All donations payable to:

Sarawak Heart Foundation

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Tel: 082-258212 ; Fax: 082-258303
Website: sarawakheartfoundation.org.my

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Ref. JHDN 01/35/42.51/179-6.4381