



# NOTES OF THE ROTARY CLUB OF ROYAL HUA HIN (RCRHH): Tuesday 24<sup>th</sup> November 2020 Arrhythmia Professor, Dr Koonlawee Nademanee Bumrungrad Hospital Bangkok.

Time: 12:00 to 14:00 hrs.

Location: Amari Hotel and Spa Imagine Room.

Attendance: 42 Members: 14 Guests: 28

Dr Koonlawee Nademanee Guest Speaker Thailand Dr Donya Hemmdhun Thailand Tanya Christel Do Canada Atirak Charukitpipat Thailand Dr Haiko Emmanuel Holland Manussawee Emanual Thailand Leo Emnuel Holland Stephanie Hodges UK

Puttarapong Kanpukdee Thailand

Albert Labermeiser Republic of Bavaria

Adriana Ligthart Austria
Peiter Ligthart Austria
Kamolthip Pettit Thailand
Chanunporn Phimpahu Thailand
Rujira Songprakhon Thailand
Porntip Utsahaphan Thailand
Dr Ben Van Zoelen Holland

Richard Wicking

Edwin Willems Holland

Udo Kim

Bruno Spornberger

Patcharin Wicking Thailand
Miyoung Grab South Korea

David Range USA
Shubh Range Thailand
Daana Manilova

Pookie Manilova Die Mailova Following the Thai National Anthem P Brian called upon Sargent at Arms (SAA) Rick Rees to introduce our quests.

SAA Rick introduced Dr Koonlawee Nademanee our Guest Speaker; however, he went onto say because of the large number of guests he would just do a warm welcome to all guests.

P Brian went onto mention recent and future events:

- 21 Nov TELK Opening, Ban Nongkhon School, 9.00-11.00 am
- 21 Nov Fundraising Night, Ban Nongkhon School, THB 625
- 24 Nov Arrhythmia Cardiological Disorders, Dr Koonlawee Nademanee
- 8 Dec Club Lunch Meeting, RI Training with PP Gianni
- 11 Dec 11th RCRHH Fundraising Golf Tournament, Banyan Golf Club
- 15 Dec Board Meeting
- 18 Dec RCRHH Christmas Party at Avani Resort, 18.00, THB 1,400 & THB 700
- 24 Dec 'Elephantastic Christmas Concert' at Monsoon Valley Vineyard

President Elect Phil Lawrence spoke to the audience regarding the Grand opening of the Anuban Hua Hin Nongkhon School and the new Rotary Education Center, Technology Enhanced for Learning (TELK) classroom. PE Phil went onto say that this was a pivotal moment in the 11-year history of the Rotary Club of Royal Hua Hin in terms of such an ambitious and high-profile project, also in terms of investment form the club currently at over 3 million Thai Baht.



This project will be instrumental in changing the way education is taught here in Thailand, moving away from the teacher led classroom, to one where the teacher becomes the conductor and the students are the masters of their own destiny using the platform of the world wide web to learn.

A full story of this event will soon be published on CR











P Brian then called upon Tanya Christel to introduce Dr Koonlawee Nademanee todays guest speaker on the subject of Arrhythmia.

Prof. Dr. Koonlawee Nademanee

Triple board certified in Internal Medicine, Cardiovascular Disease and Clinical Cardiac Electrophysiology (electrical activities of the heart i.e. arrhythmias).

Today's talk will surround the workings of the heart as it ages, common conditions of the heart specifically that of arrhythmias, signs and symptoms of concern. And importantly, what we can all do to maintain heart health.

An arrhythmia describes an irregular heartbeat. With this condition, a person's heart may beat too quickly, too slowly, too early, or with an irregular rhythm. Arrhythmias occur when the electrical signals that coordinate heartbeats are not working correctly.



Cardiac arrhythmia refers to a group of conditions that cause the heart to beat irregular, too slowly, or too quickly.

There are several categories of arrhythmia, including:

- bradycardia, or a slow heartbeat
- · tachycardia, or a fast heartbeat
- irregular heartbeat, also known as a flutter or fibrillation
- early heartbeat, or a premature contraction

Most arrhythmias are not severe and do not cause complications. Some, however, can increase the risk of stroke or cardiac arrest.



Some people may hear doctors use the word "dysrhythmia" when referring to their irregular heartbeat. The words arrhythmia and dysrhythmia mean the same, but the word arrhythmia is more prevalent.

# What is a normal heartbeat?

Doctors identify a healthy heartbeat by counting the number of times the heart beats every minute (bpm) during rest. This is known as the resting heart rate.

The range for a healthy resting heart rate varies between individuals, but the American Heart

Association (AHA) suggests that it is usually between 60 and 100 bpm.



The fitter a person is, the lower their resting heart rate becomes. Olympic athletes, for example, will usually have a resting heart rate of less than 60 bpm, because their hearts are highly efficient.

The heart should beat with a regular rhythm, consisting of double "ba-bum" beats with even spaces in between each.

One of these beats is the heart contracting to provide oxygen to blood that has already circulated, and the other involves the heart pushing oxygenated blood around the body.

A person can measure their heart rate using their pulse. This is a point at which they can feel the heartbeat through the skin. The best locations on the body for this are:

- the wrists
- the insides of the elbows
- the side of the neck
- the top of the foot

Types

There are several types of arrhythmia:



## Atrial fibrillation:

This is the irregular beating of the atrial chambers, and nearly always involves tachycardia. Atrial fibrillation (A-fib) is common and mainly develops in adults over 65 years of age.

Instead of producing a single, strong contraction, the chamber fibrillates, or quivers, often producing a rapid heartbeat.



#### Atrial flutter:

While fibrillation causes many random and different quivers in the atrium, atrial flutter is usually from one area in the atrium that is not conducting properly. This produces a consistent pattern in the abnormal heart conduction.

Some people may experience both flutter and fibrillation.

Atrial flutter can be a serious condition and usually leads to fibrillation without treatment.

Supraventricular tachycardia:

The condition known as supraventricular tachycardia (SVT) refers to a rapid but rhythmically regular heartbeat. An individual can experience a burst of accelerated heartbeats that can last from a few seconds to a few hours.

Doctors classify atrial fibrillation and flutter under SVTs.

Ventricular tachycardia:

This condition refers to abnormal electrical impulses that start in the ventricles and cause an abnormally fast heartbeat. This often happens if the heart has a scar from a previous heart attack.

## Ventricular fibrillation:

This is an irregular heart rhythm consisting of rapid, uncoordinated, and fluttering contractions of the ventricles. The ventricles do not pump blood but quiver instead.



Ventricular fibrillation can be life threatening and usually has links to heart disease. A heart attack often triggers it.

Long QT syndrome:

This syndrome refers to a heart rhythm disorder that sometimes causes rapid, uncoordinated heartbeats. This can result in fainting, which may be life threatening.

It can also occur due to genetic susceptibility or taking certain medications.

#### Causes:

Any interruption to the electrical impulses that stimulate heart contractions may result in arrhythmia.

Several factors can cause the heart to work incorrectly, including:

- alcohol abuse
- diabetes
- substance use disorder
- drinking too much coffee
- · heart disease, such as congestive heart failure
- high blood pressure
- hyperthyroidism, or an overactive thyroid gland
- stress
- scarring of the heart, often due to a heart attack
- smoking
- certain dietary and herbal supplements
- some medications
- structural changes in the heart

A person with good heart health will hardly ever experience long-term arrhythmia unless they have an external trigger, such as a substance use disorder or an electric shock.

However, an underlying heart problem can mean that electrical impulses do not travel through the heart correctly. This increases the risk of arrhythmia.

# **Symptoms**

Arrhythmia might not cause noticeable symptoms. However, a doctor may detect an arrhythmia during a routine examination or after requesting an electrocardiogram (EKG).

Even if an individual notices symptom, it does not necessarily mean that they have a severe arrhythmia.

Some people with life threatening arrhythmias may have no symptoms, while others with symptoms may not have a severe arrhythmia.

Symptoms depend on the type of arrhythmia, as follows:

Symptoms of tachycardia:

Symptoms of a rapid heartbeat include:

- breathlessness
- dizziness
- · fainting or nearly fainting
- fluttering in the chest
- chest pain
- lightheadedness
- sudden weakness

Symptoms of bradycardia:

Bradycardia can cause the following symptoms:

- · angina, or chest pain
- · trouble concentrating
- confusion
- · finding exercise more difficult than usual
- dizziness
- tiredness
- lightheadedness
- palpitations
- · shortness of breath
- · fainting or nearly fainting
- profuse sweating

Symptoms of A-fib:

When A-fib symptoms occur, they often have a rapid onset and may involve:

- angina
- breathlessness
- dizziness
- palpitations
- fainting or nearly fainting
- weakness

# Complications:

Some people may not experience active symptoms due to arrhythmia. However, treatment is still essential for preventing further complications, which may include stroke and heart failure.

Stroke: Atrial fibrillation means that the heart is not pumping effectively. This condition can cause blood to collect in pools and form clots.

If a clot dislodges, it may travel to a brain artery, causing a potentially fatal blockage, or stroke. Stroke can cause brain damage and require emergency treatment.

Heart failure: Prolonged tachycardia or bradycardia can result in heart failure. When the heart is failing, it cannot pump enough blood to the body and its organs. Treatment can usually help improve this.

Following the presentation Dr Koonlawee answered a number of interesting questions from members and guests. P Brian then thanked Dr Koonlawee and his team from Bumrungrad Hospital Bangkok for a very worthwhile and interesting topic.

Tanya from Bumrungrad Hospital informed the meeting that the hospital had provided three raffle prizes as follows:

1 voucher for Health Check and Healthy Heart assessment

2 Vouchers for Heart Screening (Calcium Coronary CT), Hyperbaric Oxygen Therapy.

Rotarian Arnold Ruijs won the 1<sup>st</sup> voucher and Kamolthip Pettit from Rotary Club Hua Hin and Daana Manilova won the latter vouchers.







Tanya then presented gifts of body care products to Immediate Past President Napa Keawtem and President

Brian Anderson for making this event possible and look forward to further corroboration between the Bumrungrad Hospital Bangkok and the Rotary Club of Royal Hua Hin.







There being no other business lunch was called.

Minutes prepared by PE Phil Lawrence.