

SYMPOSIUM ON RHEUMATIC HEART DISEASE

On the seventeenth of April, 1972, the Hong Kong Cardiologist Society held a symposium on rheumatic heart disease. The venue was Pheasant Room, Mandarin Hotel. The Chairman of the Society, Dr John Leung, who, incidentally, is Honorary Adviser of Caduceus, officiated the meeting. In all, five eminent cardiologists spoke. The papers presented will be published as original articles in medical journals. The following is a record of the evening's speeches as covered by Caduceus with the kind permission of the Cardiologist Society. It must be emphasized that the present record does not represent the original texts of the papers.

PREVALENCE & PATTERN

**Dr Barnes, Senior Specialist,
Queen Elizabeth Hospital.**

In recent years, the incidence and severity of rheumatic heart disease in developed countries have diminished greatly. However, the situation in Hong Kong and in the East in general has not been so fortunate. Thus, rheumatic heart disease in New York, Boston and London has been quoted as comprising about 15-25% of all heart cases, whereas in Eastern countries (Hong Kong, India, Thailand, Peking, Shanghai) a survey of heart cases over the past two decades reveal that rheumatic heart disease in these places comprises 30-40% of heart diseases. In Hong Kong in particular it has been observed that there is a gradual and steady climb in the number of patients admitted with rheumatic heart disease into government hospitals.

Rheumatic heart disease usually starts in children from five years to fifteen years and about one-third of hospitalised cases are children. This is inspite of the liberal use of antibiotics and is most importantly due to the low social economic status from which most of these patients come from.

Rheumatic heart disease occurs more frequently among females. The forms of lesions differ in different age groups. Thus in the second decade mitral stenosis with incompetence represents the major lesion. With older patients, the tendency to develop mitral stenosis is increased so that in the fourth decade mitral stenosis is present in a significant proportion of patients.

The majority of rheumatic heart disease patients have one of the following lesions: mitral stenosis, mitral stenosis with incompetence, and mitral incompetence with stenosis with the latter predominating. They all do well with simple valvotomy except for a significant number of the last group who requires open heart surgery and/or replacement of valves. The treatment for those with both mitral and aortic involvement is difficult but fortunately they are not so numerous. Those with only aortic involvement comprise only a very small portion of all patients.

In children (12-15 years) the severity of cardiac involvement has been compared on a four-grade system:

- Grade I No detectable valvular lesion
- Grade II Detectable valvular lesion (i.e. with audible murmurs)
- Grade III With symptoms
- Grade IV Severe valvular lesions

The last grade comprises 7-8% of the child rheumatic heart disease patients, a significant number of whom have to have valvotomy before the age of 14. Considering the large number of rheumatic heart disease patients we have (1000 hospitalisation per year), this group poses a formidable problem.

In the second decade, most patients are in sinus rhythm but as we go up the age groups atrial fibrillation becomes more and more important so that in the fourth decade atrial fibrillation cases equal sinus rhythm cases and in older patients atrial fibrillation cases predominate. Cerebral embolism thus occur more frequently in older patients.

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CAUSES OF DEATH

Heart Failure	58%
Cerebral Embolism	20%
Subacute Bacterial Endocarditis	7%
Valvotomy	5%
Others: Carcinoma	
Intra-cerebral Hemorrhage	
Adam-Stokes Attack	
Drug Overdosage	

Cerebral embolism becomes a significant cause of death in the third decade and becomes more and more important in older age groups. In patients in the second decade, the cause of death is mainly carditis with its sequelae of heart failure. Generous use of prophylactic penicillin will prevent most deaths from carditis. It is suggested that anticoagulant therapy may prevent cerebral embolism.

It is most unfortunate that most of these patients come from poor families so that without external aid they cannot be adequately treated. There is thus a need to look into their plight, particularly those young patients who are incapacitated from carditis.

CLINICAL PICTURE

**Dr Joseph Pan, Honorary Clinical Lecturer,
University Department of Medicine.**

The clinical picture of chronic rheumatic heart disease is that of chronic valvular disease. Chronic rheumatic pericarditis seldom if ever causes severe hemodynamic disturbances, and chronic rheumatic myocarditis, if giving rise to trouble, often coexists with rheumatic endocarditis. In 82.7% of rheumatic heart cases the mitral valve is involved. Aortic valve involvement makes up 15.5%, with tricuspid valve involvement comprising a small 1.8%.

Mitral valvular disease does not necessarily give rise to symptoms which mostly appear late in the course of the disease. The normal mitral valve area of 3-4 sq. cm. must be narrowed down to 1 sq. cm. before symptoms appear. Thus early detection of mitral stenosis depends on the recognition of signs. In rheumatic valvular disease, very often either stenosis or incompetence predominates and cases where stenosis and incompetence are present to the same degree of severity is not so common.

SYMPTOMS OF MITRAL STENOSIS

Effort Dyspnoea	100%
Palpitation	
Respiratory Symptoms	
Bronchitis	90%
Hemoptysis	65%
Orthopnoea	62%
Right Ventricular Failure Symptoms	
Edema	58%
Abdominal Distension	58%
Epigastric Pain	
Fatigue	32%
Acute Pulmonary Edema	27%
Paroxysmal Dyspnoea	27%
Precordial Pain	19%
Syncope	rare

SYMPTOMS OF MITRAL INCOMPETENCE

Similar to those of mitral stenosis but with a higher occurrence of fatigue.

SIGNS OF MITRAL STENOSIS

1 Cardiac Impulse	
Normal	47%
Showing signs of right ventricular enlargement	51%
Showing signs of bilateral ventricular enlargement	2%
2 First Heart Sound	

It is best heard at the cardiac apex. It is accentuated and snappy. But in 3% of the cases it is normal. Slightly less than half of the cases (42%) are associated with an opening snap.

3 Presence of Diastolic Murmur

This is present in all cases and is diagnostic of the lesion. The murmur can occur early in diastole or late but invariably there is a gap between the second heart sound and the murmur. The duration of the murmur in relation to that of the diastole varies and the longer it is, the more severe will be the stenosis.

SIGNS OF MITRAL INCOMPETENCE

1 First Heart Sound

Typically it is soft, low or even absent. However it may not be truly absent because the pansystolic murmur starts with the first heart sound and so may mask it. In the majority of cases it is normal or softer than normal.

2 Pan-systolic Murmur

It follows immediately the first heart sound and then has a uniform intensity continuing right up to the second sound or may even go beyond that. Mitral incompetence due to other causes does not have a pan-systolic murmur and in its place only a late systolic murmur is present. Thus the pan-systolic murmur is an important differentiating sign.

3 Third Heart Sound

In severe mitral incompetence, a third heart sound may appear after the second sound or there may even be a very short mid-diastolic murmur. If the latter is present it will be difficult to differentiate between simple incompetence from stenosis complicating incompetence. However, if it is of sufficient duration, it is more likely to be due to coexisting stenosis. If it is short, it can be due to either one.

4 Signs of Left Ventricular Hypertrophy

In patients with signs compatible with both mitral stenosis and incompetence. An enlarged left ventricle will favor the diagnosis of mitral incompetence.

AORTIC VALVULAR DISEASE

In contrast to mitral valvular disease in which usually either stenosis or incompetence predominates, aortic valvular disease, if rheumatic in origin, tends to occur in varying degrees of combination of the two lesions. Furthermore, aortic incompetence is commoner.

LESIONS IN RHEUMATIC AORTIC VALVULAR DISEASE

AI	32%
AI/as	26%
AI/AS	17%
AS/ai	12%
AS	13%

Another point of difference from rheumatic mitral valve involvement which occurs alone, rheumatic aortic valvular disease tends to coexist with mitral involvement. Thus

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Symposium on RHD

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52%	with mitral stenosis
25%	with mitral incompetence
15%	without mitral involvement
8%	without mitral involvement but with Austin — Flint murmur

The last group has to be substantiated by post-mortem findings or by the absence of signs of mitral involvement and the presence of a normal left atrium on X ray or ECG.

However, similar to mitral valve disease is the fact that symptoms appear late and early detection of the lesion depends on signs. The aortic valve area of 3 sq. cm, must be narrowed down to 0.5 sq. cm. before hemodynamic disturbances are severe enough to cause symptoms.

SYMPTOMS OF AORTIC VALVULAR DISEASE

There is not much difference between the symptomatology of aortic and mitral valvular diseases.

Dyspnoea	83%
Palpitation	70%
Edema (Right Ventricular Failure)	31%
Respiratory Symptoms	
Orthopnoea	27%
Paroxysmal Dyspnoea	12%
Hemoptysis	12%
Dizziness (Never in Mitral Valve Disease)	15%
Precordial Pain	13%
Fatigue	10%
Syncope (Rare in Mitral Valve Disease)	6%

SIGNS OF AORTIC VALVULAR DISEASE

- Cardiac Impulse
 - with normal cardiac impulse 35%
 - with signs of left ventricular hypertrophy 65%
- Second Heart Sound (Aortic Component)
 - AS soft
 - AI normal or accentuated
 - AS/AI anywhere between soft and loud
- Murmur

With aortic valvular disease, murmurs are best heard at the left sternal border either over the second or third spaces. With aortic stenosis, the murmur can also be heard at the right sternal border. In aortic stenosis, the murmur is an ejection murmur, mid-systolic in timing, which tails off to end of systole. In aortic incompetence the murmur follows immediately after the second heart sound.

4 Arterial pulse

Here it is better to go for the carotid pulse than the radial pulse.

Character of Pulse

	AI	AS/AI	AS
a large & collapsing	+		
b pulsus bisferiens		+	
c moderate (normal)	+		+
d small pulse with delayed upstroke			+

Thus when the pulse is normal, it does not help one way or the other.

CARDIOLOGICAL INVESTIGATIONS

Dr Peter Wong,

MITRAL STENOSIS

Hemodynamics

Mitral stenosis poses a mechanical obstruction to blood flow through the mitral valve. In order to maintain the same flow within the same time, pressure in the left atrium increases. This will be reflected on the pulmonary circulation. When the mitral valve is closed, i.e., in systole, the left atrium and ventricle are disconnected and no sign will be present. But once the mitral valve opens (opening snap), the increased atrial pressure driving blood through a stenotic orifice will produce murmur, mid-diastolic in timing. When near the end of diastole the atrium contracts (a wave), the flow through the stenotic mitral valve will be even more turbulent — pre-systolic accentuation. The

gap between the second heart sound (aortic valve closure) and the opening snap can be used to gauge the severity of the stenosis. The shorter it is, the more stenotic is the valve, because a higher atrial pressure (i.e. a more stenotic valve) will take less time for the falling ventricular pressure to fall below it.

Pressure Tracing

Left ventricle	normal
Left atrium	mean pressure raised
	large positive pressure gradient over left ventricle during diastole
	a wave may or may not be present. If present, the heart is in sinus rhythm. It is absent in atrial fibrillation.
	v wave has a gradual descent because of the narrowed lumen

Catheterisation

To measure left atrial pressure, catheterisation is necessary. An indirect method is to pass the catheter into the pulmonary artery and push it to the smallest pulmonary capillaries, neglecting the small difference of the pressure there from that of the left atrium.

Direct measurement in the left atrium can be done by passing the catheter via the arterial side into the left atrium. Or it is passed via the venous side to the right atrium and then puncturing the atrial wall (transseptal technique).

Calculation of Valve Area

$$\text{Area} = \frac{\text{In general, Flow Rate}}{\text{Cx sq. root of } (2G(P_1 - P_2))}$$

where C: empirical constant

P₁: proximal chamber's pressure

P₂: distal chamber's pressure

G: gravitation constant

For mitral valve,

$$\text{Mitral Valve Area} = \frac{\text{CO/DFP}}{31 \times \text{sq. root of } (LA-LV)}$$

where CO: cardiac output

DFP: diastolic filling period

LA: left atrial pressure

LV: left ventricular pressure

MITRAL INCOMPETENCE

Hemodynamics

Here the mitral valve cannot disconnect the left atrium and ventricle in systole, so with each systole a certain amount of blood is regurgitated into the left atrium. Thus left atrial pressure is expected to be higher than normal. Cardiac output will be diminished. This decrease is compensated by left ventricular hypertrophy. The regurgitant jet of blood produces a pan-systolic murmur. When the mitral valve opens, because of the increased left atrial pressure, there will be rapid ventricular filling giving rise to the third heart sound.

Pressure Tracing

Left atrium	pressure raised
	prominent v wave with rapid descent when mitral valve opens
Left ventricle	end-diastolic pressure is raised.

Angiocardiology

This method is important in the investigation of mitral incompetence. A catheter is passed into the femoral vein, brought to the heart, and passed transseptally through the fossa ovale into the left atrium and then down to the tip of the left ventricle. Dye is injected. Antero-posterior and lateral X rays are taken. In mitral incompetence, it will be seen that both the aorta and left atrium fill on systole. Very often a regurgitant jet can actually be seen.

AORTIC STENOSIS

Hemodynamics

Because of the obstruction, the left ventricle hypertrophies to maintain adequate cardiac output. Systemic pressure is raised. Each time the ventricle contracts, blood rushing through the stenotic

aortic valve will produce the so-called ejection murmur.

Pressure tracing

Left ventricle	pressure raised
Aorta	pressure raised
	negative systolic pressure gradient compared with the left ventricle.
	percussion wave with a slow ascent because of the stenotic valve

Calculation of Valve Area

$$\text{Aortic Valve Area} = \frac{\text{CO/SEP}}{44.5 \times \text{sq. root of } (LV - A)}$$

where SEP: systolic ejection period
A: aortic pressure

Angiocardiology

The catheter is passed into the tip of the left ventricle and dye injected. Post-stenotic dilatation of the aorta, narrowed valve, systolic jet through the valve are important features that can be seen.

AORTIC INCOMPETENCE

Hemodynamics

After each systole, the incompetent aortic valve cannot close the lumen completely. Thus with each diastolic blood flows back to the ventricle — early diastolic murmur. The left ventricle also hypertrophies and systemic pressure tends to rise.

Pressure Tracing

Left ventricle	pressure raised
Aorta	sharp high percussion wave, with rapid descent
	lowered diastolic pressure (because of the regurgitation)

TRICUSPID STENOSIS

Simultaneous pressure tracing of the right atrium and ventricle will show the presence of a pressure gradient.

TRICUSPID INCOMPETENCE

The diagnostic feature is the huge v wave similar to mitral incompetence. But here it is referred to the jugular veins.

MEDICAL TREATMENT

Dr. T. C. Yu, Honorary Clinical Lecturer,
University Department of Medicine.

There is no specific treatment for rheumatic fever and its cardiac manifestations.

I Bed Rest

This has been overemphasized particularly in the West where patients are put on bed rest for 3-6 months. In Hong Kong the duration is usually only 6 weeks. The rationale behind compulsory bed rest is to decrease the work load on the heart and its valves. Bed rest should be stopped only when the Erythrocyte Sedimentation Rate has returned to normal but in Hong Kong for the lack of bed spaces patients have to be mobilised even though they still have a high ESR. Patients with persistent erythema marginatum will also be mobilised because it is now not taken as a sign of acute rheumatic activity.

II Irradiation of Residual Streptococcal Throat Infection

Current therapy for this is one of the following: benzathine penicillin IM, penicillin IM, erythromycin oral, penicillin oral. Of course before therapy is started, a throat swab is taken and culture done. In patients with streptococcal sore throat, this treatment given early enough will abort the occurrence of rheumatic fever.

III Suppressive Therapy

This serves to shorten the natural course of the rheumatic fever and suppress the fever and joint symptoms. Either Calcium aspirin or prednisone is used. In the past it has been the practice to maintain high doses even when the symptoms are controlled. Now it has been shown that it is better to cut down the dosage once the symptoms are suppressed and with this overdosage can be avoided.

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瑪麗灣女童院問後感

編者的話：

四月二十九日星期六那天，一年級同學在瑪麗灣女童院作了一個下午的訪問，是次訪問由班會屬下的 Social Activity Sub-committee 發起，約有五六十人參加，經費則由各同學捐助。

這個屬會是由一群關心社會的同學組成；約在同年三月，一年級班會曾在大大口環兒童骨科院作了一個親善訪問，事後一些熱心同學認為應有組織地深入社會問題，遂組成了此屬會。共設有七個職位：Chairman, Vice-Chairman, Treasurer, External Secretary, Internal Secretary and two Social Secretaries.

據聞此等有組織性的社會活動在醫院高層屬罕見，故作簡介，以供高年級同學參照。試想連剛進大學的同學都如此熱心，那麼高年級的同學應作些甚麼？

瑪麗灣女童院，位於黃竹坑新邨後的山麓，靠着青翠的山崗，面臨瑪麗灣。在微風輕拂夕陽斜照之下，一片安寧寧靜，然而她底深雅清麗之氣質，却蘊藏着無法理解的慈愛與溫情。

不錯，在這社會制度之下，每一個人所熱習的是一板一眼「熱衷於競爭，冷漠於情性」的面孔。朋友間的交往，以利害為前提已不在話下，最令人痛心的是：本無利害衝突的同學之誼，也每每為利益所侵蝕；甚至父母兄弟之親，也因缺乏熾熱感情之維繫，而淪為互相傾軋，骨肉相殘。此等埋沒人性的事例，在香港真是不鮮見！女童院所收容的七十五名女童，可以說是「攪現代物質繁榮社會中的犧牲品」。大部份都是



貧苦家庭中被遺棄的一代。父母為求滿足生活的要求，不惜雙雙投身於「過者生存，物競天擇」的搏鬥中，至使一個個弱小無知的心靈，被攫奪了溫暖的家，慈祥的母愛和嚴謹的父訓。而使她們（及他們）暴露於人情的冷暖，社會的炎涼之中，瀕於社會淪落至風之下。這樣殘酷的現實就是如此這般地培養了一批批魔鬼的接班人。

主辦瑪麗灣女童院的善牧會是一個世界性的社會福利組織，在各地設有各類形的服務機構，如：戒毒所、感化院、養老院及各類婦孺收容所等。她目睹香港社會的歪風，和很多其他志願團體一樣，伸出天使般援助的手，挽救部份趨於淪落的兒童及青年。

這所女童院，不單收容了有犯罪傾向或犯罪機會的女童，還負責教育、引導及訓練的工作。院內除設有宿舍、飯堂外，還有五、六個課室，一個家政室、自修室、圖書館及一個小小的聖堂，聘有導師十餘個及三個修女操辦，學級由小學二年級至中一，課室跟其他中小學無異。這些孩子們每天的起居生活都有詳盡的安排。這些小朋友們，通常都對訪客訴生活太刻板枯燥，有些還說厭倦了。然而，據一位修女透露，潛逃的事例是稀有的；除了以下的一位很特殊的例子外：

那是她的父親莫名其妙地拋棄了她的媽媽，另尋新歡，無畏地把她托於女童院然後棄之不顧，更缺乏上進的勇氣與信心，沉默孤寂，始終不能與人相處，悄悄的溜走了。在茫茫人海中，失却了踪影。這位修女，說起來時猶搖首嘆息：「在這社會中，以她的孤寡性情，不難陷入罪惡的陷阱而墮落，但是我們又能做些甚麼呢？——不錯，我們對廣大的青年能夠做些甚麼來幫助他（她）們離開罪惡的誘惑呢？盡管像瑪麗灣女童院一類的機構和比她更積極更完善的機構，在狹小的香港，雖然不算太多，但相信也不算少吧！倘若回顧近年來青年犯罪的頻率和犯事範圍的叢叢檔案，疊疊紀錄後，我們便發覺此等事件不但有增無減，而且幅度的增加令人驚駭不已；範圍不但擴大，而且擴大的程度令人不寒而慄。從偷竊騙掠，演變成謀殺、姦淫、械鬥；甚至開設色情架步、毒窟、外國賭博等等不勝枚舉。真是無孔不入，無惡不作。這不禁使人消極地，失望地懷疑這些治標不治本的社會工作的價值。我們又能做些甚麼呢？」

INTERNSHIP

ONE YEAR OR TWO

From the previous questionnaire devised by the Commission on Medical Education and the Second Quadrennium Plan 1974-78, it is found that the majority (83%) favours a multi-rotational housemanship.

48% three 4-month appointments
52% four 3-month appointments

After careful consideration and consultation with the staff, the Commission realizes that a one-year multi-rotational housemanship has several drawbacks:-

1. A 3 or 4 month appointment is too short. The houseman has to spend some time to pick up the hospital routine. He has little time left to apply his knowledge. (Editor's Note: The General Medical Council decrees two 6-month assignments, one in medicine and the other in surgery)
2. There is a seasonal variation about cases. Also, some cases drag for months. Therefore a 3-4 month period may not allow the houseman a closer look into the specialty.
3. The increased turnover rate of housemanship adds an extra burden to the hospital staff.

Therefore, a 2-year multi-rotational housemanship is recommended. This would

allow students more exposure to different clinical specialties and more flexibility in choosing a specialty. Moreover, more graduates will be retained in the Government wards to serve the patients. The salary for houseman in such system is suggested to be the average of that of the present houseman and first year medical officer.

In view of the important implication of this 2-year housemanship, the Society has sought the opinions of the general student body for reference of the Faculty by issuing another questionnaire. The questions are as follows:-

1. Are you in favour of a multi-rotational housemanship within one year if this is possible? (Yes 71%, No 29%)
2. If the above is impossible, do you prefer a multi-rotational housemanship within 2 years to the present 2 assignments within 1 year? (Yes 50%, Yes 50%)
3. Do you prefer a 1 year compulsory and 1 year elective (voluntary) housemanship to the present 1 year compulsory housemanship so that you can get experience in the field which you are interested in but were not given the chance in the first year intern. (Yes 78%, No 22%)

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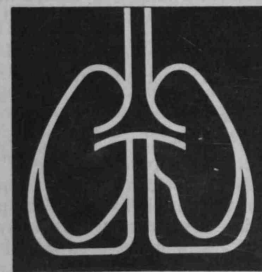
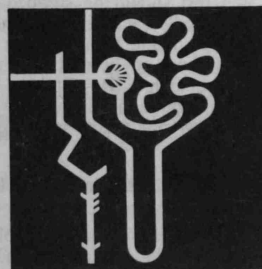
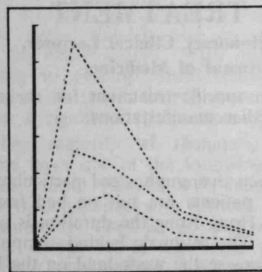
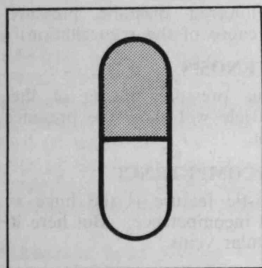
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Symposium on RHD

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It was at one time believed that steroids were superior to salicylates. But this has been discredited. In fact steroids and salicylates are equally good and the prognosis of patients with rheumatic fever with regard to cardiac lesions really depends on the severity of cardiac involvement at the time when treatment started.

IV Prevention of Recurrence of Rheumatic Fever (Prophylactic Chemotherapy)

It has been shown that over a ten-year period 70% of patients without prophylactic treatment will suffer from recurrent attacks of rheumatic fever after the initial attack is suppressed with II, whereas only 2-5% of patients with prophylactic treatment will develop rheumatic fever again.

For prophylaxis, benzathine penicillin IM, oral penicillin and the sulphonamides can be used. Because of overcrowding in Hong Kong, it is necessary to keep the chemoprophylaxis up to the age of 24 years or even for life. Even when on chemoprophylaxis, if the patient should develop sore throat, the prophylactic antibiotic must be increased or supplemented with erythromycin or cephaloridin.

V Avoidance of Subacute Bacterial Endocarditis

The patient must be told of his heart condition and warned of the possibility of development of SBE. Thus patients must be reminded that they have to tell their dentist of their attack of rheumatic fever and the drug regime they are on. Cephaloridin IM injection before a dental extraction and antibiotic e.g. erythromycin maintained for the next 24 hours will give good protection.

VI Reference to Valvotomy

The following are features favoring valvotomy:

- Exertion dyspnoea
- Recurrent bronchitis
- Pulmonary edema
- Embolism
- Prolonged diastolic murmur with opening snap
- X ray signs of Kerley's B lines

It is better not to operate on patients below 20 years and over 60 years, though some cases require operation even at the age of 14. With carditis, it is better to operate at 6 months after it subsides. More important is the accurate assessment of myocardial condition, whether the patient is suffering more from the valvular lesion or from other myocardial factors. Thus in patients with a long history of incapacity, myocardial factors are more important in causing symptoms, because even if there is stenosis of valve, the patient's heart

would not be strong enough to cause obstruction. Surgery is also contraindicated when there is congestive heart failure or when electrocardiogram does not show signs of right ventricular hypertrophy.

VII End-stage Patients

When congestive heart failure sets in and digoxin and other diuretics fail to reduce the edematous state, the patient will already be in the end of the disease. They will either die of the low sodium state characteristic of this situation or cerebral embolism. However certain things can be done. The patient should be put on fluid restriction and hypertonic saline infusion and mannitol infusion may be instituted.

SURGICAL TREATMENT

Dr. K. H. Kwong, Honorary Clinical Lecturer, University Department of Surgery.

Since the mitral valve is most frequently affected in rheumatic carditis, small wonder that mitral valvotomy is the most important. There are three surgical methods: closed mitral valvotomy, open mitral valvotomy, and mitral valve replacement. The first is the standard treatment while much fewer cases require one of the latter two.

Closed mitral valvotomy is simple, effective, with minimal risk and lasting improvement. This is the treatment for simple mitral stenosis. However, there are two dreadful complications: post-operative systemic embolism, and operative mitral incompetence.

Post-operative Systemic Embolism

Two points are pertinent: the interrelationship between atrial fibrillation, clot in the left atrium, pre-operative systemic embolism and post-operative systemic embolism, and, the effectiveness of prophylactic anticoagulation.

Pre-operative systemic embolism, atrial fibrillation and clot in the left atrium are probably related to one another. However, their occurrence has been shown to be of limited predictive value for post-operative systemic embolism. Only 5% of patients with pre-operative systemic embolism develop systemic embolism after operation. And only 8% of those with clot in the left atrium develop systemic embolism post-operatively. Probably, the clot has either become organised or dissolved away by the fibrinolytic system when the patient comes to the operation table.

Many people advocate the use of prophylactic anticoagulants for patients with a history of atrial fibrillation or embolism. However, many centres including us have found that post-operative systemic embolism without prophylactic anticoagulation occur in no more than 2% of patients.

Traumatic Mitral Incompetence

The incidence of this is low with both of the two techniques available. The figure fracture technique is better because sometimes the Tubbs' Dilator cannot be controlled so well and thus may cause fatal mitral injury.

Open Mitral Valvotomy

Indications for open mitral valvotomy:

- 1 Heavily calcified valve
- Because of the danger of calcium embolism if a closed operation is done.
- 2 Referred case of mitral stenosis
- If the valve is found to be badly damaged in a previous operation, an open operation is indicated.
- 3 Significant Mitral Incompetence
- 4 History of Embolism

This is not accepted any longer because a history of embolism has been shown to have little or no predictive value for clot in the left atrium.

Compared with a mortality of less than 2% in closed mitral valvotomy, open mitral valvotomy with or without valve replacement is less successful. In both groups the mortality is 10-15%.

Mitral Valve Replacement

With prosthetic valves, the problem is systemic embolism. For the newer ones it is reduced to 1-3%. However, these newer prostheses have narrower lumens thus giving rise to systolic pressure gradient between the left atrium & ventricle.

With homografts, the difficulty is to procure enough material for the incompetent mitral lumen. Usually the aortic valve is used. Systolic pressure gradient usually results because the aortic valve is small.

With heterografts, the results are not promising because of the inevitable rejection, degeneration etc. They do not usually last more than one year.

Autologous tissue grafts suffer more or less the same fate with degeneration and calcification. The material is usually fascia lata and pericardium.

Another problem is that for late cases, there is a significant number with tricuspid incompetence in addition to mitral involvement. There have been conflicting opinions as to whether the tricuspid valve should be replaced as well.

Surgical Treatment of Aortic Valvular Disease

The principles are the same as those discussed above. Surgery is indicated with

- 1 Systolic gradient of over 50 mm Hg
- 2 Symptoms of dizziness, syncope, breathlessness
- 3 EKG or X ray evidence of left ventricular hypertrophy
- 4 Gross aortic regurgitation

THIS MONTH IN MEDIC CENTRE

2ND MB RESULT

A NEW DEAN

Professor Gibson, Professor of Pathology, was elected to replace Professor McFadzean as Dean of the Medical Faculty. This marks the beginning of the end to the tyrannical rule of Professor McFadzean over this medical school where any length of hair is considered obscene, any color other than white indecent, where when you are late for one second for his lecture, you will be required to remove yourself, and where you have to write your case on blank paper 8" x 10.5".

Dracula comes to Medic Centre

The Hong Kong Red Cross had a successful day

with Medics with fifty-eight of them showing up for the Blood Donation Day on May 2 in Physiology Department.

The tie that unites Medics

Year after year, entering classes of freshmen clamour for the Medic Tie. But it never seems to be available for them before they pass the 1st MB. Though every senior assures them that they have every right to put on the Medic Tie, no one quite cares to explain why at such occasions as Freshmen Welcome Party the Medic Tie is always out of stock. But this year, this 'tradition' will be gone for ever. Medic ties will be sold to first year students, probably at the end of this term.

The Questionnaire Epidemic

It seems that everybody is issuing questionnaires. The students have prepared two, one for the Commission's consumption and the other on multi-rotational internship. The Department of Social and Preventive Medicine issued one, probably in response to the 60 odd % of unsatisfactory remark on the department. The Surgery Department also jumped on the bandwagon and had its own questionnaire to see what people feel about the teaching of surgery.

MEDIC ANNUAL BALL

The Medic Annual Ball will be held in the Grand Ballroom, Hilton Hotel on

June 17, 1972, Saturday. Tickets for the evening of fun and gaiety are \$40 per couple for students and \$60 per couple for qualified medical personnel and others. There will be a fashion show with costumes kindly supplied by Shui Hing.

Under the businessman-like leadership of Mr Ho Kay, our Social Secretary, with his star-studded Organising Committee (Winston Lim, Cheng Chun Ho, Helen Chan, Amy Tong), the Annual Ball will be a surefire success, another social exercise for our Establishment-minded young gentlemen.

At long last, the result of the Second Professional Examination was ready. It was released on May 10. Some statistics of the Exam: Pharmacology

Total (121); Absent (1); Pass (110); Fail (7); Distinction (3).

Pathology and Microbiology Total (122); Absent (1); Pass (111); Fail (8); Distinction (2).

Failing in one subject: 13. Failing in two subjects: 2. Distinctions in Pharmacology: Miss Harpaul Kaur, Mr. Yan Tung Wing, Mr. Yew Wing Wai.

Distinctions in Pathology and Microbiology: Mr. Yan Tung Wing, Mr. Yew Wing Wai.

思 啟文

臺魚釣衛保

支持香港專上
學生聯會五月十
三日保衛釣魚台
行動。

不怕白食
不怕日晒
不怕雨拉
不怕拉河
力保

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