English Summary

Therapy of Essential Hypertension

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All hypertension should be regarded as essential hypertension unless proven otherwise. The first thing to do in the therapy of hypertension is to recognize and to avoid or reduce all predisposing factor/risk factors.

Drug therapy starts with diuretics; other drugs (vasodilator, beta-blocker etc.) are added if the blood pressure can not be satisfactorily controlled with diuretics alone. However, patients suffering from malignant hypertension or accelerated hypertension should be admitted to hospital and rigorous therapy should be started immediately.

A scheme for the therapy of hypertension used in Hasan Sadikin Hospital / Faculty of Medicine, Padjadjaran University is presented by the author. (CDK No. 19, 1980 p.6.)

Essential Hypertension, Pathogenesis, Pathophysiology & the Role of Beta-blockers

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Based on its pathophysiology, essential hypertension can be classified into 3 stages : labile essential hypertension, fixed essential hyper - tension, and malignant essential hypertension; the stages of the disease being related to plasma renin activity. Renin is suspected to have a vasculotoxic effect; thus, plasma renin determination can be used as an indicator of future cardiovascular complications (stroke & myocard infarction).

Essential hypertension with low renin activity shows a good response to diuretics; Essential hypertension with normal renin activity responds to diuretics and antirenin; while essential hypertension with high renin activity responds to antirenin, i.e. beta-blockers.

The mechanism responsible for lowering blood pressure in the therapy with beta-blockers is quite complex; several hypothesis are hereby presented.

Beta - blockers are divided into 2 groups according to their cardioselectivity and intrinsic sympathomimetic activity.

The "trio" combination, vasodilator, beta-blocker and diuretic, is very effective against refractory malignant essential hypertension. (CDK No.19, 1980 p.9.)

Screening test for the Diagnosis of Renovascular Hypertension

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Renovascular hypertension was suggested in 10 severe hypertensive patients with an average age of 25,0 years. Reduced renal perfusion was found in all 10 patients on renography and scintigraphy. Stenotic lesions involving the renal arteries were suspected in 6 out of 10 patients on selective renal arteriography. Hypokalaemia with serum potassium levels less than 3,5 meq/L was found in 5 out of 6 patients with stenotic lesions. Renin assays were not done. Renography and scintigraphy can be used as screening tests for the diagnosis of renovasculaz hypertension. (CDK No.19, 1980 p.16.)

High Blood Pressure as a Community Problem

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Nowadays as a result of the advancement of technology, mortality due to infectious diseases is declining, while that due to cardiovascular diseases tends to increase. Among those cardiovascular diseases, one which needs pazticular attention is high blood pressure. In this article the author reviews some aspects of high blood pressure as a community problem (CDK No.19, 1980 p.22.)

Hypertensive Heart Disease

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This article discusses the pathophysiology of left ventricular hypertrophy and heart failure as complications of hypertension.

Heart failure does not necessarily follow hypertension, especially chronic hypertension. Hypertension itself accelerates atherogenic processes in the coronary vessels and favours the development of heart failure if uncontrolled. However, when heart failure is already established, adequate therapy can be expected to improve ventricular work.

Enlargement of the left atrium on ECG examination and S4 sounds on auscultation, point towazds an early abnormality in the left ventricle, before ECG, radiologic & clinical examinations reveal plain left ventricular hypertrophy. (CDK No.19, 1980 p.24.)

The Role of Beta-blockers in Cardiovascular diseases

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The author reviews the role of beta-blockers in cardiovascular diseases, Beta-blockers are effective for the therapy of tachyarrhythmia cordis, angina pectoris & intennediate syndrome, acute myocardiac infarction, hypertension, thyrotoxicosis & thyroid heart disease, hyperdynamic beta-adrenergic states, dissecting thoracic aortic aneurism, idiopathic hypertrophic subaortic stenosis (IHSS) and pheochromocytoma.

However, side effects & contraindications must be kept in mind in using beta-blockers. (CDK No.19, 1980 p.27.)

Iron Deficiency Anemia in Pregnancy

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Iron deficiency anemia is a disorder most frequently encountered in pregnancy. The signs of this type of anemia are often obscured by the resemblance to the physiological (normal) changes in pregnancy.

To enable the physicians to recognize an early sign of iron deficiency anemia, the author reviews the physiological changes of the hematologic system during pregnancy, the iron requirements in health & disease, the effects of anemia on the mother & child and the symptoms and therapy. (CDK No.19, 1980 p.33.)

Disseminated Intravascular Coagulation

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Disseminated intravascular coagulation (DIC) is a pathological syndrome resulting from the formation of thrombin, subsequent activation and consumption of certain coagulant proteins, and production of fibrin thrombi.

There are two distinct modes of presentation of DIC :

— acute DIC : which develops rapidly; the patfent often presents a multiside bleeding diatheses which can range from oozing to catastrophic life-threatening haemorrhage

— chronic DIC : which waxes and wanes over periods of months and thrombotic complications predominate

■ Conditions initiating patients to DIC are :

— the release of coagulant materials to the circulation

— diffuse endothelial injury

— diffuse platelet aggregation

Abnormalities in all three screening tests (prothrombin time, fibrinogen concentration and platelet count) establish the diagnosis of DIC in the absence of haemo-dilution or severe hepatic dysfunction.

When only two screening tests are abnormal at any given time, confirmatory tests (to measure the FDP) may be required to diagnose DIC

The spectrum of pathological findings in DIC include fibrin thrombi, frequently found in the kidney.

There is universal agreement that identification and treatment of all precipitating factors are the keystones of management of DIC. The use of coagulation factors and heparin remains controversial, so do the other variety of therapies.

Further advances in the management of DIC depend on the results of prospective, randomized controlled trials of alternate therapeutic regimens, which may be conducted in the future.
(CDK No.19, 1980 p.36.)

Slow and rapid acetylator of isoniazide (INH) in Jakarta community

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A study to determine the frequency of rapid and slow acetylator of isoniazide (INH) was performed on 158 subjects among 12 ethnic groups in Jakarta community. The rate of acetylation of INH was determined by spectrophotometric method according to Eidus et al.

Fifty percent of the subjects were found as rapid acetylator; 47,47 % as slow acetylator and 2,53 % were intermediate acetylator.
(CDK No.19, 1980 p.39.)

Bioavailability and Therapeutic Equivalence

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There are 4 factors, each of which has an effect on therapeutic equivalence, i.e. the drug, the patient's body, the causes of the disease and the environment. The ideal parameter to measure therapeutic equivalence is of course the therapeutic effect itself. However this is difficult to measure. Furthermore, what is actually needed is a method which is practical, cheap, easy to perform , sensitive, reliable, and able to predict therapeutic equivalence.

Of the 3 methods available, i.e. *(i)* measurement of disintegration & dissolution time, *(ii))* measurement of bioavailability, and *(iii)* measurement or drug concentration in plasma or serum, bioavailability turned out to be the best to predict therapeutic equivalence (CDK No.19, 1980 p.41.)

Traumatic hyphaema

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Traumatic hyphaema is an ocular emergency which needs special attention to avoid resulting blindness. There are several methods of management for traumatic hyphaema, but these are still a matter of controversy.

This article reviews the controversy.' The author himself suggests that the management of traumatic hyphaema should start with conservative treatments (total bed rest, eye patching. & use of drugs). Surgery of the eye is only performed when conservative treatments fail (CDK No.19, 1980 p.44.)