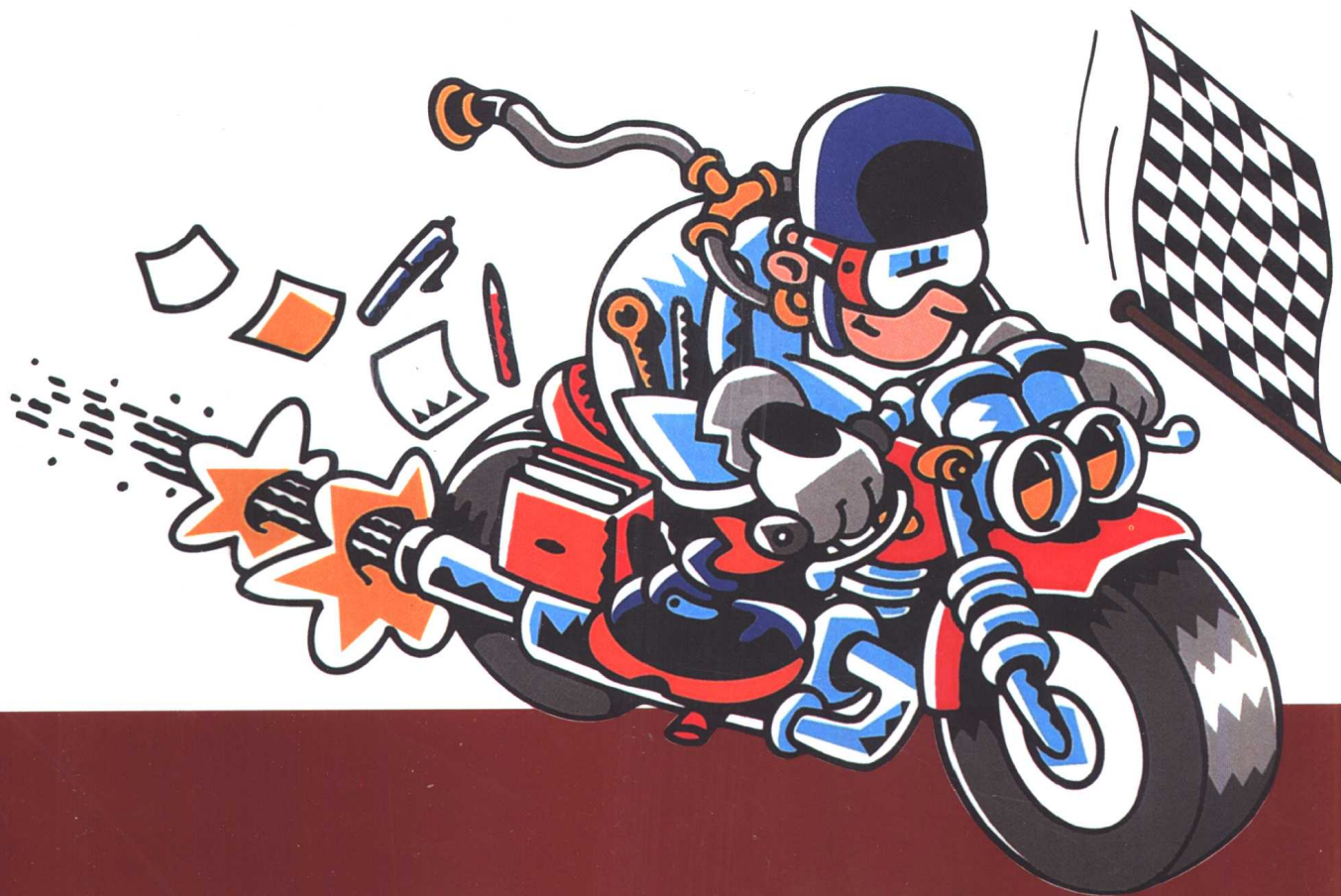


风暴式医学教程 *MOSBY'S CRASH COURSE* (原版英文医学教程)

内科学

Internal Medicine

Rachael Hough ◉ Iftikhar Ul Haq
with Wilfred Yeo Series Editor



国际医学
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科学出版社
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(原版英文医学教程)

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Mosby's Crash Course

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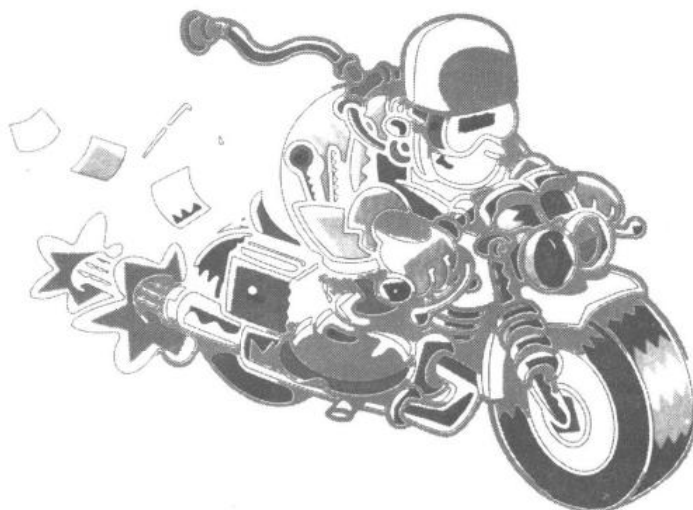
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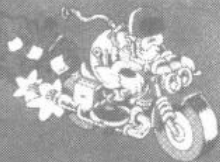
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Preface

Medicine is easier than you think! At the end of the day, there are only a certain number of things that can go wrong with any part of us. So, if a patient tells you about a particular symptom, or you find an abnormal sign on investigation, there are a limited number of possibilities that you need to think about. The key is to have a structured approach, remembering that common things *are* common.

In *Crash Course Internal Medicine*, we have tried to write the book we would like to have had as we faced finals and began house-jobs. The format includes a methodical approach to common symptoms, signs, and investigations. This is followed by a comprehensive, theoretical background to specific diseases and how to manage them. We have illustrated the text with diagrams, and with boxes containing hints and tips that we have found useful ourselves.

Armed with the knowledge described in this book, we hope that you will find exams and house-jobs less intimidating and more enjoyable.

Best wishes.

Ifi Ul Haq and Rachael Hough

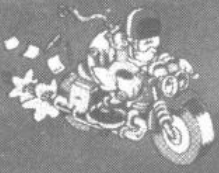
So you have an exam in medicine and you don't know where to start? The answer is easy—start with *Crash Course*. Medicine is fun to learn if you can bring it to life with patients who need their problems solving. Conventional medical textbooks are written back-to-front, starting with the diagnosis and then describing the disease. This is because medicine evolved by careful observations and descriptions of individual diseases for which, until this century, there was no treatment. Modern medicine is about problem solving, learning methods to find the right path through the differential diagnosis, and offering treatment promptly.

This series of books has been designed to help you solve common medical problems by starting with the patient and extracting the salient points in the history, examination, and investigations. Part II gives you essential information on the physical examination and investigations as seen through the eyes of practising doctors in their specialty. Once the diagnosis is made, you can refer to Part III to confirm that the diagnosis is correct and get advice regarding treatment.

Throughout the series we have included informative diagrams and hints and tips boxes to simplify your learning. The books are meant as revision tools, but are comprehensive, accurate and well balanced and should enable you to learn each subject well. To check that you did learn something from the book (rather than just flashing it in front of your eyes!), we have added a self-assessment section in the usual format of most medical exams—multiple-choice and short-answer questions (with answers), and case studies for self-directed learning. Good luck!

Wilf Yeo

Series Editor (Clinical) and Faculty Advisor



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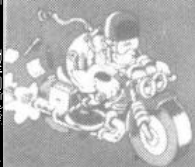
To Mum, Dad, Lubna, Farhan and Aaminah **Iffi**

To Mum, Dad, Sophy and Chris **Rachael**



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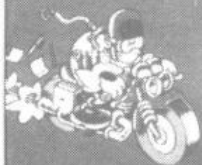
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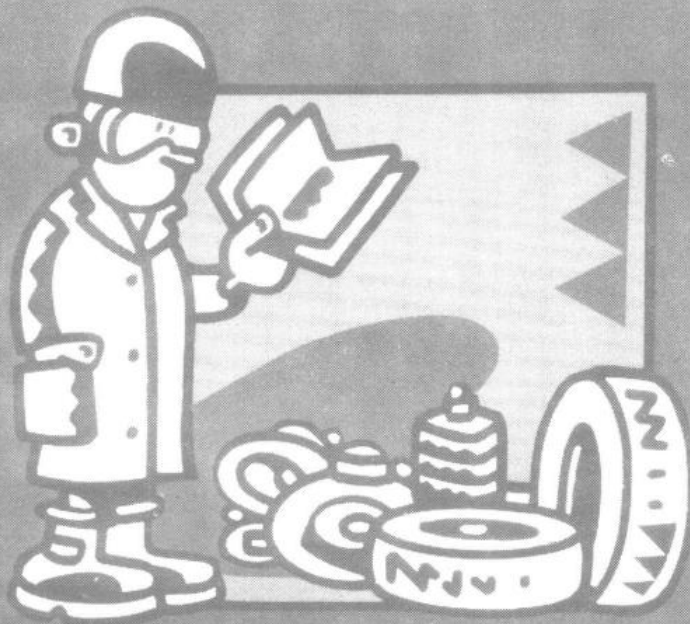
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1. Chest Pain

INTRODUCTION

Chest pain is a common cause for admission to hospital. Taking a clear history is essential in making the correct diagnosis. Different diseases present with different types of chest pain.

DIFFERENTIAL DIAGNOSIS OF CHEST PAIN

Pleuritic chest pain

This is a sharp pain that is worse on deep inspiration, coughing, or movement. The differential diagnosis includes the following:

- Pneumothorax.
- Pneumonia.
- Pulmonary embolus (PE).
- Pericarditis: retrosternal.
- Bornholm disease (Coxsackie B unilateral infection of respiratory muscles).

Dull central chest pain

The differential diagnosis of dull central chest pain includes the following:

- Angina: crushing.
- Myocardial infarction (MI): crushing.
- Dissecting aortic aneurysm: tearing interscapular pain.
- Oesophagitis: burning.
- Oesophageal spasm.

Chest wall tenderness

The differential diagnosis of chest wall tenderness includes the following:

- Rib fracture.
- Shingles (herpes zoster): pain precedes rash.
- Costochondritis (Tietze's syndrome).

Atypical presentations (or any of the above)

The differential diagnosis in atypical presentations (or in any of the above) includes anxiety and referred pain

from vertebral collapse causing nerve root irritation or intra-abdominal pathology (e.g. pancreatitis, peptic ulcer, or the biliary tree).

HISTORY IN THE PATIENT WITH CHEST PAIN

A careful history of the chest pain will generally be suggestive of the likely underlying problem. The focus should then turn to any associated symptoms and risk factors.

What type of chest pain does the patient have?

Onset and progression of pain

Cardiac ischaemic pain typically builds up over a few minutes and may be brought on by exercise, emotion, or cold weather. In angina the pain resolves on resting or with GTN. In unstable angina the pain may come on at rest and commonly waxes and wanes, becoming severe at times. In MI the pain is severe, often associated with systemic symptoms such as nausea, vomiting, and sweating, and lasts for at least 30 minutes. Spontaneous pneumothorax and pulmonary embolism usually causes sudden onset of pleuritic pain (the patient often remembers exactly what they were doing at the time).



Always ask the patient what they were doing when the pain came on. This generally gives valuable information!

Site and radiation of pain

Cardiac ischaemia and pericarditis cause retrosternal pain. In ischaemia, the pain often radiates to the jaw or arms, while dissecting aortic



aneurysm causes a tearing interscapular pain, and pulmonary disease causes unilateral pain which the patient can often localize specifically. Oesophageal disease can also cause retrosternal pain and may mimic cardiac pain. Referred pain from vertebral collapse or shingles will follow a dermatome pattern.

Nature of pain

The precise nature of the pain gives important clues as to the underlying diagnosis (see above).

Are there any associated symptoms?

Important associated symptoms include:

- Dyspnoea: pulmonary embolism, pneumonia, pneumothorax, pulmonary oedema in cardiac ischaemia, hyperventilation in anxiety.
- Cough: purulent sputum in pneumonia, haemoptysis in pulmonary embolism, frothy pink sputum in pulmonary oedema.
- Rigors: pneumonia (particularly lobar pneumonia).
- Calf swelling: has PE arisen from deep vein thrombosis?
- Palpitations: arrhythmia can cause angina or result from cardiac ischaemia, PE, or pneumonia.
- Clamminess, nausea, vomiting, and sweating are features of myocardial infarction or massive pulmonary embolism.

Are risk factors present?

Important risk factors include:

- Ischaemic heart disease: smoking, family history, cholesterol, hypertension, diabetes.
- PE: recent travel, immobility, or surgery, family history, pregnancy, malignancy.
- Pneumothorax: spontaneous (young, thin men), trauma, emphysema, asthma, malignancy, staphylococcal pneumonia, cystic fibrosis.

EXAMINING THE PATIENT WITH CHEST PAIN

The examination should focus on determining the cause of the pain and then looking for risk factors and consequences of the underlying problem. A schematic guide to examining the patient with chest pain is given in Fig. 1.1.

What is the cause of the pain?

Pay particular attention to:

- Pulse: tachycardia or arrhythmia.
- Blood pressure: discrepancy between left and right arms in aortic dissection.
- Chest wall tenderness: rib fracture, costochondritis, anxiety, shingles.
- Chest examination: pneumothorax, consolidation, pleural rub.
- Cardiac examination: fourth heart sound (PE or MI), rub (pericarditis).

Are there risk factors?

The following risk factors may be present:

- Abnormal lipids: xanthelasma, tendon xanthoma.
- Nicotine stained fingers: predisposition to ischaemic heart disease.
- Hot, oedematous, tender calf suggesting deep vein thrombosis.
- Hypertension: ischaemic heart disease.

What are the complications?

Complications may include:

- Pulse: arrhythmia, tachycardia.
- Blood pressure: shock in tension pneumothorax, massive pulmonary embolism, MI.
- Cardiac failure: pulmonary oedema and 3rd heart sound.
- Murmurs: acute mitral regurgitation and ventricular septal defect after MI; aortic regurgitation in dissecting aortic aneurysm.

INVESTIGATING THE PATIENT WITH CHEST PAIN

All patients with chest pain should have an electrocardiogram (ECG) and chest X-ray (CXR). Further investigation will be directed by findings in these tests in conjunction with the history and clinical examination. An algorithm for the investigation of the patient with chest pain is given in Fig. 1.2.

Electrocardiogram

ST depression and elevation (Fig. 1.3) on ECG are suggestive of myocardial ischaemia and acute MI, respectively. Changes suggestive of PE are shown in Fig. 1.4. Arrhythmia may also be detected on ECG.