

V I S U A L D I A G N O S I S

S E L F - T E S T S

RESPIRATORY TRACT
INFECTIONS

呼吸道感染

Paul S Thomas

Kwok Kong Frank Yan 编著

Deborah H Yates

临床医师深造双语读物

王维娜 译

《影像学诊断问答》系列

Merit Publishing International 授权
天津科技翻译出版公司出版

临床医师深造双语读物
《影像学诊断问答》系列

呼吸道感染

RESPIRATORY TRACT INFECTIONS

Paul S Thomas

[澳大利亚] Kwok Kong Frank Yan 编著

Deborah H Yates

王维娜 译

Merit Publishing International 授权
天津科技翻译出版公司出版

著作权合同登记号:图字:02-2001-209

图书在版编目(CIP)数据

呼吸道感染/(澳)保罗(Paul, S. T.)等编著;王维娜译. —天津:
天津科技翻译出版公司, 2002.4
(影像学诊断问答系列)

书名原文:Respiratory Tract Infections

ISBN 7-5433-1501-7

I. 呼… II. ①保… ②王… III. 呼吸系统疾病—影像诊断—
问答—汉、英 IV. R560.4-44

中国版本图书馆CIP数据核字(2002)第011868号

Copyright © 2001 Merit Publishing International

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

中文简体字版权属天津科技翻译出版公司

授权单位:Merit Publishing International

出版:天津科技翻译出版公司

出版人:邢淑琴

地址:天津市南开区白堤路244号

邮政编码:300192

电话:022-87893561

传真:022-87892476

E-mail: tptbc @ public .tpt .tj .cn

印刷:廊坊人民印刷厂

发行:全国新华书店

版本记录:787×960 横 16开本 7.25印张 114千字
2002年4月第1版 2002年4月第1次印刷
印数:3000册 定价:11.00元

(如发现印装问题,可与出版社调换)

INTRODUCTION

The lungs provide the interface between the environment and the inner body, and it is therefore unsurprising that respiratory tract illnesses are the leading infectious cause of death in developed countries. The annual rate of lower respiratory tract infection is approximately 3 per 1000 in England and Wales, and pneumonia is the sixth commonest cause of hospital admission. UK statistics show that pneumonia is the underlying cause of death in approximately one in four deaths in the over 65 age group, and mortality is increasing, especially in the very old. While the majority of respiratory infections in the community require no specific treatment, those patients who develop pneumonia and other serious respiratory infections require recognition, investigation, and specific treatment. Of those who develop pneumonia and require hospital admission, the mortality can reach 10% ~ 15%, while in those patients with hospital-acquired pneumonia, mortality can approach 50%. The recognition of these infections and their appropriate treatment is therefore essential for the management of the large numbers of patients who present either to their primary care physician or to the hospital doctor.

Studies in the USA suggest it may account for approximately

导言

肺脏在环境及体内机体之间提供了一个界面,因此在发达国家呼吸道疾病是引起死亡的首要感染性病因就不足为奇了。下呼吸道感染在英格兰及威尔士的年发病率约为千分之三,肺炎在住院原因中排在第六位。英国的统计资料表明,在65岁以上人群中肺炎为基本死亡原因的约占总死亡人数的四分之一,且死亡率处于上升趋势,特别是高龄人群。尽管大多数社区内的呼吸系统感染不需特殊治疗,但那些发展成肺炎的患者及其他严重呼吸系统感染者却需要进行识别、检查及特殊治疗。在那些发展成肺炎因而需住院的患者中,死亡率可达10%~15%,而那些患医院获得性肺炎的患者,死亡率可达50%。因此识别这些感染并给予合适的治疗对大量就诊于初诊医生或住院医生的病人来说是最基本的治疗要求。

美国的一些研究表明,肺部感染约有10%的患者伴



10% of cases, that it is associated with pharyngitis, and occurs as epidemics in closed communities. *Chlamydia pneumoniae* has more recently been identified as a cause of pneumonia in adults and children, but the precise incidence and significance has yet to be determined.

Today, the vast majority of respiratory bacterial infections, in the order of 60% - 75%, are still caused by *Streptococcus pneumoniae*. It is most common in the late winter and early spring. There are epidemics of *Mycoplasma pneumoniae* every four years, but infection remains common at other times. Legionella infection is more common in the summer and autumn, but in approximately two-thirds of cases, there is a history of infection in a relative, or of stay in a hospital or hotel. In those failing to respond to β lactam antibiotics, a history of recent influenza may suggest a secondary infection with *Staphylococcus aureus*, contact with birds or farm animals could suggest organisms such as *Chlamydia psittaci* (psittacosis) or *Coxiella burnetii* (Q fever), and penicillin resistance should be considered.

In the patient with underlying chronic obstructive pulmonary disease (COPD), *Haemophilus influenzae* or *Moraxella catarrhalis* must be considered, and antibiotic resistance is more common. In patients with alcohol abuse, epilepsy or problems with swallowing, aspiration is likely and subsequent infection, probably

发有咽炎,是作为封闭社区内的流行疾病发生的。最近证实肺炎衣原体是成人及儿童肺炎的病因之一,但准确的发病率及重要意义尚待确定。

今天,最主要的(60% ~ 75%)呼吸道细菌感染仍是由肺炎链球菌引起的。最常发生于冬末春初。支原体肺炎每四年流行一次,但在其余时间内感染处于一般水平。军团杆菌感染夏秋季多见,但约有三分之二的病例,有亲属感染史或住院、住宾馆的经历。那些对 β 内酰胺类抗生素不敏感的患者,最近的流感病史中可能提示为金黄色葡萄球菌继发性感染,与鸟类或家畜接触可提示是鹦鹉热衣原体或伯纳特立克次体(Q热)感染,而且应考虑对青霉素的耐药性。

对有慢性阻塞性肺部疾病(COPD)的患者,必须考虑流感嗜血杆菌或卡他莫拉菌属,而且抗生素耐药性也很常见。对于有乙醇滥用、癫痫或吞咽困难的患者,吸入性感染可能是一种后继感染,可能伴厌氧菌感染。这些感染很难与不需要特殊抗生素治疗的单纯性胃酸性肺炎相

with anaerobes. Such infections are difficult to differentiate from simple gastric acid pneumonitis, where no specific antibiotic treatment is required.

The point at which the patient needs to be referred for a specialist opinion often relies on the judgement of experienced of family doctors. They have to differentiate between the many patients that they see with simple viral illnesses, such as adenovirus, rhinovirus, parainfluenza and influenza, which constitute the majority of cases with respiratory infection, and those that require further investigation. Of the many viruses that cause lower respiratory tract infections, several occur in epidemics (e. g. influenza A, B and C), and on the whole treatment is supportive. However, bacterial infection may follow viral infection, and then may be associated with virulent organisms.

Some simple clinical observations can be helpful in deciding on the need for referral. Some of the clinical features which have been documented in research studies to be associated with an increased risk of death include: a respiratory rate of > 30 breaths per minute, tachycardia, cyanosis, a diastolic blood pressure of < 60 mm Hg, age > 60 , confusion, involvement of both lungs, atrial fibrillation, and underlying chronic disease (e. g. diabetes, COPD). Once the patient has reached hospital, indicators of high mortality are: PaO_2 of < 8 kPa (60 mm Hg) breath-

鉴别。

患者是否需要求助于专家门诊常依赖于家庭医生的经验性判断。他们必须鉴别那些大多数患者所患的单纯病毒感染,如腺病毒、鼻病毒、副流感病毒及流感病毒性疾病(这些主要是呼吸性感染的病例),以及那些需做进一步检查的疾病。在引起下呼吸道感染的许多病毒中,有些可在人群中流行(如流感病毒 A、B、C),但总的来说要采取支持性治疗。然而,细菌感染可继发于病毒感染,且与病毒性微生物有关。

一些简单的临床观察对决定治疗安排很有帮助。一些研究中证实的与死亡危险率增加有关的临床表现包括:呼吸频率 > 30 次/分、心律不齐、紫绀、舒张期血压 < 60 mmHg、年龄 > 60 岁、意识模糊、病变累及双肺、心房纤颤及潜在的慢性疾病(如糖尿病, COPD)。一旦患者被送进医院,死亡率高的指征包括: $\text{PaO}_2 < 8$ kPa (60 mmHg) 呼吸空气量,白细胞计数 $< 400 \times 10^9/\text{L}$ 或 $> 20\,000 \times 10^9/\text{L}$, 血清尿酸或肌酐水平升高及低白蛋白血症 ($< 35\text{g/L}$)。血培养中出现细菌也是预后不良的指征。

ing air, a leukocyte count of either $< 4,000$ or $> 20,000 \times 10^9/\text{litre}$, an elevated serum urate or creatinine, and hyponatremia ($< 35\text{g/L}$). The presence of bacteremia on blood cultures is also a poor prognostic sign.

After the patient has been identified within a hospital as being at risk, close observation must be maintained in case transfer to an intensive care unit is required. Criteria for admission to intensive care will depend on the individual physician, but generally admission should be considered if the patient falls into the category of severe pneumonia as defined above, and the following are present: arterial PaO_2 of $< 8 \text{ kPa}$ (60 mmHg) on 60% oxygen, $\text{PaCO}_2 > 6.4 \text{ kPa}$ (48 mmHg), with poor respiratory effort (or respiratory rate $> 35/\text{min}$), and exhaustion, hypotension, or of course, cardiorespiratory arrest.

Investigations are imperative to aid correct diagnosis and appropriate treatment. In the community, the simple sputum culture will be the most commonly performed investigation. Investigations typically include a repeat sputum culture, blood count, biochemistry, blood cultures, and serum for atypical pneumonia serology. Arterial blood gases or arterial oxygen saturation are appropriate in those who have abnormal respiratory signs on examination or radiology. Investigations then tend to proceed according to the response of the patient to treatment. In those who

患者在医院内被认定为处于危险状态之后,必须对患者进行严密观察,并需转至重症监护病房。决定是否需重症监护的标准依赖于患者体质状况,但一般情况下,如入院患者符合以上所述的严重肺炎标准而且还有以下表现,均应考虑收住到重症监护病房:动脉 $\text{PaO}_2 < 8 \text{ kPa}$ (60 mmHg) 在 60% 氧气时, $\text{PaCO}_2 > 6.4 \text{ kPa}$ (48 mmHg), 伴呼吸费力(或呼吸频率 > 35 次/分),衰竭、低血压,当然还包括心跳呼吸停止。

临床检查对准确诊断及适当治疗都是很有必要的。在社区中,简单的痰培养是最常用的检查手段。检查一般包括反复痰培养、血细胞计数、生化检查、血培养及非典型肺炎的血清学检查。动脉血气或动脉血氧饱和度对那些有异常呼吸体征或放射学检查异常的患者是适宜的。因此各项检查最好按照病人对治疗的反应来进行。对那些病情严重、对治疗反应缓慢或治疗无效的病人来说,回顾他们的病史、体征及检查结果也是必要的。

are seriously ill, patients who make a slow response to the treatment or in whom it appears to be ineffective, a review of the history, signs and investigations is essential.

Additional investigations may include urine tests for pneumococcal antigen (which can also be performed on sputum and pleural fluid) and legionella antibodies, and blood for cold agglutinins indicative of mycoplasmosis. Abnormal liver function tests are more common in legionella and psittacosis; proteinuria and abnormal renal function tests are more common in legionellosis.

If the patient is not responding to treatment or is seriously ill, then the microbiologist can be contacted to request an initial serum atypical antibody screen instead of waiting for the usual 10 day paired convalescent serum specimen. Bronchoscopy and protected brush specimen examination may be considered in very severe cases.

Treatment of simple viral illnesses is not usually required, while in those in whom a lower respiratory infection would appear likely with purulent sputum and chest signs, an aminopenicillin such as amoxycillin is usually appropriate. Pneumococcal resistance to β -lactams is, however, an increasing problem in several parts of the world, with isolates demonstrating resistance *in vitro* in approximately one-third of cases in the United States and about

附加的检查可包括尿液检查肺炎球菌抗原(也可对痰及胸膜渗液进行检查)及军团杆菌抗体,而且支原体感染还要进行血液的冷凝集素试验。军团杆菌感染及鹦鹉热病人中常有肝功能检查异常;军团杆菌感染中常有蛋白尿及肾功能检查异常。

若患者对治疗无应答或病情严重,可以与微生物学家联系,请他做血清非特异性抗体的初步筛查,而不是等待常规的10天后恢复期配对血清标本检查。在非常严重的病例中可以考虑做支气管镜检查及气管刷取物检查。

单纯病毒感染性疾病常不需治疗,然而对那些下呼吸道感染可能有浓痰及胸部体征者,常常需要用氨基青霉素,如阿莫西林。但是肺炎球菌对 β -内酰胺类有耐药性,这在世界上一些国家和地区已成为越来越严重的问题,在美国有报道称,体外耐药药约占病例的三分之一,西班牙约为40%。英格兰及威尔士的耐药率仍较低(约6.5%),且在任何患者中此种药物耐受性通常只是间断性的,可

40% in Spain. Resistance is still low (approximately 6.5%) in England and Wales, and in any case such resistance is usually only intermediate and can be overcome by increasing the dose of the drug. A macrolide, such as erythromycin, can be used in those in whom a history of penicillin allergy exists, and is also appropriate in those with a history suggestive of an atypical organism.

Atypical pneumonia can be difficult to identify, but a prolonged illness, diarrhea, multilobar distribution, confusion, a history of travel, and illness among associates may suggest the diagnosis and treatment with a macrolide is appropriate. Many practitioners are now using amoxicillin and a macrolide to provide cover for both *Strep. Pneumoniae* and the atypical organisms, or, in a hospital, a macrolide and either a clavulanate-potentiated penicillin or a third generation cephalosporin, such as cefuroxime, ceftriaxone, or cefotaxime. If the patient is systemically unwell and there is a concern that this could be an atypical organism, intravenous erythromycin via a central vein is appropriate. In life-threatening legionellosis, the addition of rifampicin can be beneficial.

Some patients may poorly tolerate oral erythromycin and newer macrolides with fewer gastrointestinal side effects such as roxithromycin, azithromycin or clarithromycin may be considered.

通过增加药物剂量来克服。大环内酯类药物,如红霉素,可用于对青霉素有过敏史的患者,也适用于提示有非典型性微生物感染史的患者。

非典型性肺炎可能难以识别,但如有发病期较长、腹泻、多叶分布、意识模糊、旅游史及疾病相关因素,可提示诊断为非典型肺炎,用大环内酯类药物治疗是合适的。许多医生现在应用阿莫西林和大环内酯类药物来杀灭肺炎链球菌及其他非典型性感染微生物,或者在医院给予一种大环内酯类药物和一种衍生性强效青霉素或第三代头孢菌素,如头孢呋辛、头孢曲松或头孢噻肟。若患者各系统情况不太好,并考虑可能为非典型型微生物感染,经中央静脉静脉给予红霉素是很适合的。对有生命危险的军团菌感染,同时给予甲哌力复霉素可能有益。

有些患者可能对口服红霉素耐受性差,可考虑服用仅有轻度胃肠道副作用的新型大环内酯类药物,如罗红霉素(roxithromycin)、阿齐霉素或甲红霉素(clarithromycin)

recent influenza, yet the pa-
ysis, or the presence of pneu-
hylococcus aureus pneumonia
in those with diabetes melli-
collin, with or without fucidic
used for treatment.

onic lung disease, associated
at not be forgotten, even if the
such. Thus, those with COPD
e and *Moraxella catarrhalis*,
e antibiotics suitable for their
Patients with cystic fibrosis
ses are more likely to have or-
treu's or *Pseudomonas aerug-*
he latter organism has to be
occur as a contaminant. Pseu-
acle was recently implicated in
as infection!

blished for the management of
but only the most recent take
s now available, such as the
and the new quinolones. An-
to local factors including drug

等。如果最近有流感病史迹象,而病人尚不知晓,或有咯
血,或有肺膨出,则应考虑为金黄色葡萄球菌性肺炎(特
别是糖尿病患者),而且可用氟氯西林或双氯西林,加或
不加梭链孢酸或氨基糖苷类药物进行治疗。

切不可忽视那些与微生物感染相关性较小的潜在的
慢性肺部疾病的可能性,即使患者以前无此类疾病的诊
断。因此,有慢性阻塞性肺部疾病的患者常常有流感嗜
血杆菌和卡他莫拉菌,可建议他们服用对最近痰培养敏
感的合适的抗生素。因其他原因所致的支气管扩张和囊
性纤维化的病人往往带有金黄色葡萄球菌或绿脓杆菌之
类的生物体。有时候,特别需要做绿脓杆菌培养,因此
菌可能作为污染物而出现。最近在一慢性假单孢菌感染
者的盛水容器中发现了假单孢菌。

曾公布了一些治疗社区获得性肺炎的治疗原则,但
最近大多数人仅注意一些现在投入市场的新型抗生素,
例如第四代头孢菌素及新的喹诺酮类药物。抗生素的使
用应根据局部因素而定,包括药物的可获性、细菌抗药
性及费用。在某些国家,第三代及第四代头孢菌素使用

availability, bacterial resistance and cost. Third and fourth generation cephalosporins have become popular in some countries because of their broad cover and the fact that some of the newer preparations need only to be given intravenously once daily; this should, however, be balanced against the development of potential resistance and their cost. Similarly, the newer quinolones such as sparfloracin, trovofloxacin and levofloxacin may well prove to be useful in the future, but currently there are insufficient data to confirm their superiority over existing treatment.

Treatment failures require a fresh look at the patient and their illness. This publication will demonstrate some cases where the diagnosis was only suspected after a review of the history and clinical findings. An incorrect diagnosis of pneumonia has to be considered. Perhaps the patient has a pulmonary embolus, left ventricular failure or an inflammatory disease such as cryptogenic organizing pneumonia (COP or BOOP, bronchiolitis obliterans organizing pneumonia), pulmonary eosinophilia, Wegener's granulomatosis or other autoimmune disease. Such cases require a new search for organisms, and either a transbronchial biopsy or open lung biopsy must be considered before the patient deteriorates. Antibiotic resistance may be seen in some cases of *Streptococcus pneumoniae* and with *Haemophilus influenzae*.

已很广泛,因为它们有广谱抗菌性而且有些新产品仅需每日一次静脉给药;然而,这一点应与预防可能发生的抗药性及费用综合考虑。同样,新型喹诺酮类药物,如 sparfloracin, trovofloxacin 和左旋氟氯沙星将来可能证实更有效,但目前的治疗资料尚不足以证实它们的优越性。

治疗失败需要重新审视病人及他们的疾病。此书将讨论一些只有在重新回顾病史和临床表现后才能怀疑这种诊断的病例。应考虑到肺炎的诊断不很准确。或许患者有肺栓子、左心衰竭或炎症性疾病,如病因不明性肺炎(COP 或 BOOP,闭塞性细支气管肿或其他自身免疫性疾病。酸粒细胞增多、韦格纳肉芽肿或发现病原体,而且在患者病情恶化之前应考虑做经支气管活检或开胸活检。在肺炎链球菌和流感嗜血杆菌引起的一些病例中可见抗生素耐药性。

Alternatively, an organism may not be covered or suspected, for example with the atypical organisms or *Staphylococcus aureus*. It is essential in all patients with pneumonia to ask about risk factors for the human immunodeficiency virus (HIV), since earlier treatment of pneumocystis, and treatment with antivirals, will prolong survival. The development of an abscess, empyema or antibiotic fever will require specialist advice. Most pneumonic illnesses should have shown significant radiological resolution by about six weeks. The absence of such improvement should suggest either a foreign body within a bronchus or underlying malignancy, either locally within the bronchus, or non-respiratory malignancy producing immunosuppression such as hemopoietic neoplasia, HIV or lymphoma. In the above situation the local respiratory physician can help with advice, early bronchoscopy and treatment changes.

Unusual infections tend to become noticed once the patient has failed to respond to antibiotics appropriate to typical and atypical pneumonic illnesses. As usual, it is then important for a review of the history to take place. As noted above, risk factors for the atypical pneumonias need to be elicited, but also a specific enquiry into risk factors for HIV infection, pre-existing lung disease and overseas travel and sojourns. Many of the parasitic diseases which become manifest have been contracted outside the country of origin and may not cause symptoms for many years,

另一方面,可能还有某种病原体没有考虑或怀疑到,如非典型性病原体或金黄色葡萄球菌。对所有的肺炎患者,都有必要询问其人类免疫缺陷病毒(HIV)的危险因素,因为肺囊虫的早期治疗,以及用抗病毒药物进行治疗,都可以延长生存时间。形成脓肿、脓胸或抗生素发热都需要咨询专家的意见。大多数肺炎在6周左右应出现放射学上明显的好转。缺乏好转表明支气管内有异物或潜在的恶性病变,可局限于支气管内,也可能是非呼吸系统性疾病引起的免疫抑制,如造血系统肿瘤、HIV或淋巴瘤。在以上病变中呼吸内科医师可给予建议,早期进行支气管镜检查以及变更治疗方案。

当患者对治疗典型性及非典型性肺炎给予的抗生素无应答时,应对不常见的感染加以关注。一般情况下,回顾病史是很重要的。如上所述,需要询问非典型性肺炎的危险因素,同时还需要专门询问有关HIV感染、既往肺病及海外旅行或逗留方面的危险因素。许多已明确的寄生虫病却是多年以前在国外感染的,可能是许多年(有些病例可能达数十年)以来一直未引发症状。与宿主共生是寄生虫的一种习性,但最后,一些并发症将暴露出这些不速之客的存在。例如,正是认识到了这种相关性,才把

and, in some cases, decades. It is part of the nature of parasites to live in quiet coexistence with their host, but eventually, some complication unmasks the presence of the unexpected guest. For example, in recognition of this association, *Ascaris imubricoides* has been called "man's most constant and faithful companion since time immemorial". The lung is a particular favorite with parasites, such as cestode worms, many of which use it as a place of developmental transit, before being coughed into the pharynx and swallowed again to reach the abundant food within the gastrointestinal tract.

Other parasites are often accidentally ingested by man and come to lodge in the lung or other organs without reaching the definitive host. All of these can present as an apparently acute infection. Failure to respond to usual antibiotics, the presence of an eosinophilia, and a history of travel or residence in the tropics may be clues to the presence of these interesting companions.

The complexity of respiratory infections is increased by the rising number of patients who have recently traveled internationally, who are in high-risk groups for human immunodeficiency virus infection, by the changing diagnostic methods available, and by the advent of new antibiotics. Some of these difficulties in diagnosis can be helped by the history and examination, which this publication will cover, and the appropriate laboratory tests and

蛔虫称之为“人类自占以来最稳定最忠诚的伴侣”。肺是特别适合于寄生虫生长的部位,如绦虫,在被咳入咽部而又咽回并从胃肠道获得足够的食物之前,大多是把肺部作为一个发育转变点的。

其他的寄生虫也常偶尔被人所摄入,在未达到最终宿主处之前都寄生于肺部或其他器官。所有这些均可表现为酷似急性感染。对常用抗生素无应答,存在有嗜酸性粒细胞,有热带旅游或居住史,都可能是这些寄生虫存在的线索。

由于最近曾到国外旅游的患者(他们是 HIV 感染的高危人群)人数的增加,由于可用的诊断方法的改变,还由于新抗生素的出现,增大了呼吸系统感染的复杂性。其中一些诊断上的困难可通过病史及体格检查来获得帮助。本书涵盖了以上内容,而且讨论了适宜的实验室检查和处理办法。

management are discussed.

This Third Edition of **Respiratory Tract Infections** will cover both common and infrequent respiratory infections encountered in the community and hospital setting. The radiographs and clinical history here reproduced will demonstrate the presentation of a particular infectious agent, and allow the reader to test his or her knowledge and skill in management of the clinical situation. While the management will vary in different geographic areas, general principles can be derived from these case presentations. References are given to aid those interested in a particular field or for a more general overview of the topic. We hope that the book will provide interest and instruction in this key area in respiratory medicine.

第三版《呼吸道感染》包括在社区和医院中遇到的常见的和不常见的呼吸系统感染性疾病。这里转载的 X 线平片和临床病史用来说明特殊感染因素的存在,以便让读者检测自己在处理这些临床问题时的知识和技能。尽管在不同地域对问题的处理有所不同,但仍可从这些病例中得出一些一般性的原则。给出的参考文献可为那些对特殊领域感兴趣的读者提供一些帮助,或者为此论题提供一些更普遍的观点。我们期望此书的出版将为呼吸内科的这一关键领域提供一些读者感兴趣的信息及指导。

CONTENTS

目录

Introduction	1	导言	1
Case 1	1	病例 1	1
Case 2	4	病例 2	4
Case 3	7	病例 3	7
Case 4	11	病例 4	11
Case 5	14	病例 5	14
Case 6	17	病例 6	17
Case 7	20	病例 7	20
Case 8	23	病例 8	23
Case 9	26	病例 9	26
Case 10	30	病例 10	30
Case 11	33	病例 11	33
Case 12	37	病例 12	37
Case 13	40	病例 13	40
Case 14	44	病例 14	44
Case 15	48	病例 15	48
Case 16	52	病例 16	52
Case 17	55	病例 17	55
Case 18	57	病例 18	57
Case 19	60	病例 19	60
Case 20	64	病例 20	64

Case 21	.....	66	病例 21	.....	66
Case 22	.....	69	病例 22	.....	69
Case 23	.....	72	病例 23	.....	72
Case 24	.....	74	病例 24	.....	74
Case 25	.....	77	病例 25	.....	77
Case 26	.....	79	病例 26	.....	79
Case 27	.....	82	病例 27	.....	82
Case 28	.....	86	病例 28	.....	86
Case 29	.....	90	病例 29	.....	90
Case 30	.....	94	病例 30	.....	94
References	.....	96	参考文献	.....	96

CASE 1

This is a 62-year-old woman with a past history of pulmonary fibrosis and previous drug treatment for tuberculosis. She presents with a four-month history of increasing cough, fever and fatigue.

病例 1

这是一位 62 岁老年女性患者，有肺纤维化既往史而且曾用药物治疗过结核病。患者 4 个月来出现日益加重的咳嗽、发热及疲劳。

Q • What does the chest X-ray show?

问题：胸部 X 线片显示出什么？

