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CASE REPORTS

i. Persistent cough and haemoptysis in an 8-year old boy

M Nyirenda, ES Borgstein, SM Graham
Department of Paediatrics and Department of Surgery, College of Medicine

An 8 yr old boy presented to QECH in September 2004 with a two months' history of cough and haemoptysis. He was well until July 2004 when his mother noted that he developed a non-productive cough which was worse at night and intermittently associated with fever. It was not associated with night sweats, shortness of breath or weight loss and there was no history of TB contact. There was also no history of foreign body inhalation. Review of other systems was normal.

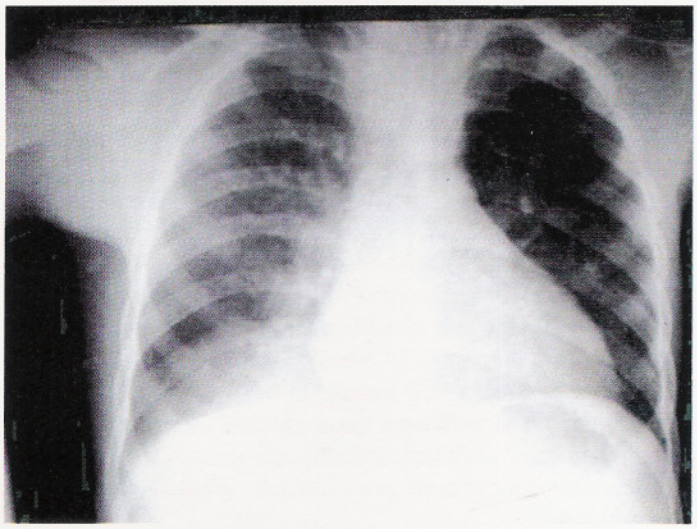
He was treated with several antibiotics at several private clinics under the presumptive diagnosis of pneumonia but there was no improvement. The hemoptysis had worsened from twice or thrice a month to about 7 or 8 episodes a month. This warranted two admissions at QECH for further investigation.

There was nothing significant in the past medical history and no history of chronic illness. He is an only child. Parents are alive and well, and have a good socioeconomic status. He attends school and only missed school during the recent admissions.

On examination he was of good nutritional status. He was not cyanosed and not in respiratory distress. The vital signs were normal. He had finger clubbing. Trachea was midline. Percussion of the chest was normally resonant. On auscultation, he had a few fine basal crackles over right base posteriorly. There were no other abnormalities on examination. No lymphadenopathy, no Kaposi sarcoma lesions, no parotid enlargement and no abdominal abnormalities. Cardiac examination was also normal.

Investigations

A chest X-ray was done which showed some patchy opacities in the right lower lobe (Figure 1). Mantoux test and HIV spot test was negative. The mother was taught "Chest physiotherapy". The symptoms did not disappear despite two prescribed courses of erythromycin for atypical pneumonia and other antibiotics obtained elsewhere. In April 2005, investigations were repeated as cough and haemoptysis persisted. Mantoux test and HIV test were again negative. CXR was unchanged with persistent RLL opacities.



Case report foreign body Fig. 1

What is your differential diagnosis?
What other investigations would you undertake?

For discussion of this case, see pg. 102

ii. Persistent galactorrhea in a postmenopausal woman with Herpes Zoster and HIV-1 Infection

Bateganya MH[1], Muhwezi J[2], Mugyenyi P[2], Kityo C[2], Lynen L[4], Zolfo M[4], Colebunders R[3,4]

[1] Makerere University Institute of Public Health/ Centers for Disease Control and Prevention HIV/AIDS Fellowship Program/JCRC, Kampala Uganda,
[2] Joint Clinical Research Center (JCRC) Kampala Uganda,
[3] Academic Alliance for AIDS Care and Prevention, Kampala Uganda,
[4] Institute of Tropical Medicine, Antwerp Belgium

We describe a 65-year old postmenopausal woman who has had galactorrhea for 8 years. She presented with cough and chest pain and milk discharge from both breasts. She had had a herpes zoster eruption in 1997 and this healed to leave a hypertrophic scar. Two months later she noticed milk discharge from both of her breasts and this has continued up to now. There is no pain or swelling of the breasts, no color change. No nipple retraction. There were no other symptoms to suggest hyperprolactinemia. She is 12 years postmenopausal, and during her reproductive years she had 6 children between 1966 and 1979. She had had normal menstruation and lactation in the past. She has not had headache or vomiting. She had not taken any anxiolytics, phenothiazines, antihypertensives, H2 receptor blockers or contraceptives at the onset of her symptoms. Her spouse died four years before the onset of galactorrhea and since then she has not been sexually active.

She weighed 51.5 kg which was 10% less than her original weight. She had no anemia, jaundice or significant axillary lymph node enlargement.

She had herpes zoster scars on the right side of the chest, level T4. Her breasts were normal in size and had no masses. A milky discharge was expressed from both breasts, but there were no obvious nipple abnormalities or skin changes. ELISA for HIV-1 was positive and she had a CD4 lymphocyte count of 251/mm^3. Serum TSH was 0.4mIU/ml (normal range. 0.47-5.01mIU/ml) while prolactin was 22.4ng (normal range. 1.9-25.9ng/ml, for

postmenopausal women).

She has continued to have galactorrhea 3 months after starting antiretroviral treatment with Stavudine 30mg BID, Lamivudine 150mg BID and Efavirenz 600mg nocte.

What are the possible explanations for galactorrhea in this patient? (for discussion see pg. 102)

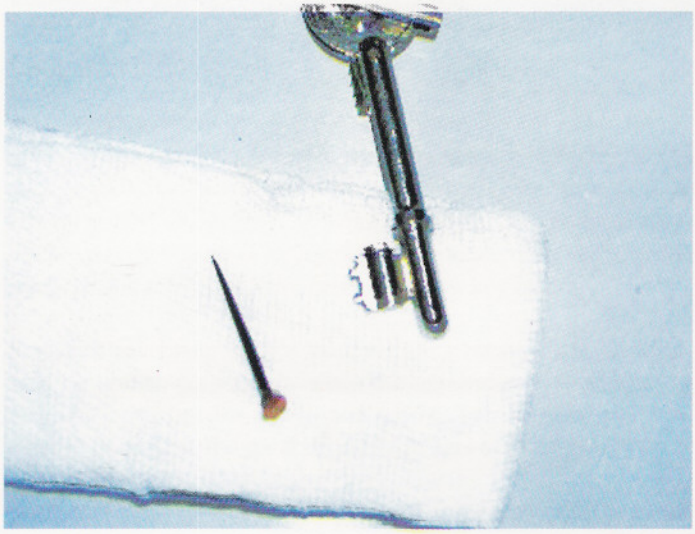
Discussions of cases

Case 1: Persistent cough and haemoptysis in an 8-year old boy

Further investigation

In order to exclude the possibility of a foreign body, the surgeons were consulted and a rigid bronchoscopy was performed. A 4 cm thorn from a tree was found in the right main bronchus. (Figure 2)

Three days after removal of the foreign body, there were no further episodes of hemoptysis. The cough had reduced in frequency and there was better air entry with very few crackles remaining in the RLL. The patient was discharged.



Case report foreign body Fig. 2

Final diagnosis: Foreign body aspiration

The differential diagnoses that were considered for further investigation were TB, bronchiectasis (cause unknown) and foreign body inhalation though this was thought unlikely as there was no history suggestive of foreign body inhalation. TB does rarely present with haemoptysis in children although this is more usual in the adolescent age group of 12 years and older with cavities on CXR. The CXR did not show a cavity and two separate Mantoux tests were non-reactive. In a well nourished, HIV-uninfected child, you would normally expect a reactive Mantoux if he had PTB.

It was certainly reasonable to exclude HIV infection especially as finger clubbing is often associated with HIV infection. The finding of finger clubbing suggests the possibility of bronchiectasis or lymphocytic interstitial pneumonitis (LIP). LIP is an HIV-related condition usually associated with other features such as parotid enlargement, persistent generalized lymphadenopathy or hepatomegaly. This child had no such features and was thriving making HIV infection less likely. Pulmonary Kaposi's sarcoma might present with haemoptysis but there were no KS lesions noted elsewhere on examination.

In most cases of foreign body aspiration, a thorough history and physical examination with CXR will provide a high index of suspicion but some children, foreign body aspiration may be totally unexpected as was the case in this particular child. The typical history is of sudden onset of choking episode, cough or wheeze. After this, a symptom-free period may follow. Later some patients develop chronic respiratory symptoms. Physical examination often reveals unilateral signs (wheeze, absent or diminished air entry, tracheal/mediastinal deviation if severe). There may or not be radiological changes (volume loss or hyperexpansion (especially if taken on expiration due to air trapping on affected side). The common age group for presentation is between 1 and 5 years of age. In the case of infants, always ask whether older siblings were present. The most common site of impaction of foreign body is in a segmental bronchus especially the right and rarely the larynx.

In Malawi, maize seeds, beans and peas are the most common objects inhaled. There have been reports of maize husks, a scapula from a mouse, fish bones and other unusual objects. These can lead to inflammation and necrosis of the bronchial epithelium if not rapidly removed. Because the seeds can become moist and disintegrate, they can be difficult to remove. Signs and symptoms may persist in such patients. Bronchiectasis can be a complication.

Always consider the diagnosis in children with persistent respiratory symptoms that are not responding to standard therapy such as antibiotics or bronchodilators for wheeze, especially if the history was of sudden onset of symptoms in a previously well child with no signs of chronic illness such as malnutrition or HIV infection. Foreign body aspiration is among the most important indications for bronchoscopy and most foreign bodies can be satisfactorily removed using rigid bronchoscopy.

Discussion of case ii.

HIV infection is associated with a number of endocrine gynecological problems including amenorrhea, infertility and galactorrhea (also referred to as inappropriate lactation)[1]. Its etiology is diverse and ranges from physiological conditions, neoplastic processes, hypothalamic-pituitary disorders, systemic diseases and medications. A few cases have been reported on its association with chest wall irritation from firm clothing or ill-fitting brassieres, skin conditions such as herpes zoster[2, 3, 4] as well as burns.

Herpes zoster like chest trauma and oesophagitis can give rise to hyperprolactinemia and galactorrhea[5]. The mechanism is thought to involve stimulation of thoracic nerves via cervical and thoracic ganglia. While the cases described had a raised prolactin level our patient had a normal level.

Hutchinson and others described four cases of galactorrhea as an isolated endocrine abnormality after use of protease inhibitors (PIs) as part of both highly active antiretroviral therapy and post exposure prophylaxis[5]. The reaction is thought to be either a direct effect of PIs or the effect of PIs on cytochrome P450.

The cause of galactorrhea in patients with HIV infection not on protease inhibitor treatment has not been studied extensively and in this case we are not sure if herpes zoster alone can explain the galactorrhea.

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