

New CT signs of alveolar cell carcinoma

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Case presentation

An 83-year-old female patient was referred to the Medical Outpatient Department of Ga-Rankuwa Hospital in March 2002 by a general practitioner. Her complaint was chest pain and a productive cough with blood-streaked white sputum of one-month duration. Her past medical history appeared uneventful. She was a non-smoker. Her medication history revealed that she has been on antibiotics non-stop for more than one month. On examination her respiration was 34/min, temperature 38°C, pulse 90 beats/min and blood pressure 110/80 mmHg. There was no lymphadenopathy; however, an incidental umbilical hernia was found. An auscultation widespread agitation was found and she coughed out white frothy sputum during the examination. A provisional diagnosis of intractable pneumonia was made.

Acid-fast bacilli tests were negative on three consecutive occasions.

A lung function test revealed a restrictive pattern.

Radiological investigations

Chest radiography

- Left lower lobe opacification (Figs 1 and 2)
- Air bronchograms in the left lower lobe (Figs 3 and 4)
- No lymphadenopathy (Figs 1 - 4)
- No signs of lobar collapse (Figs 1 and 2)
- Cardiomeastinal relationships normal.

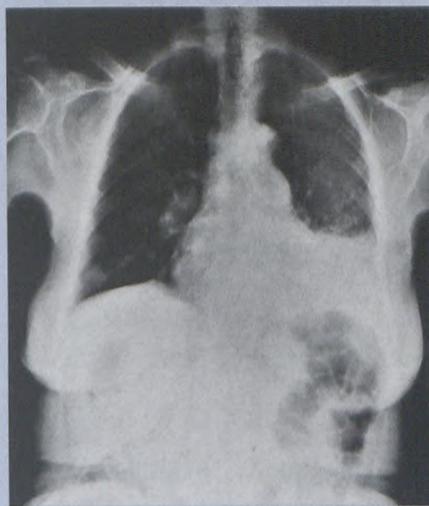


Fig. 1 Dense consolidation in the left lower zone with air bronchograms.



Fig. 2 Consolidation of the left upper and lower lobes.

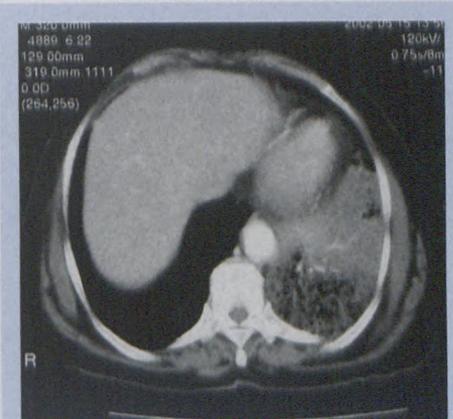


Fig. 3. Post-contrast axial CT showing an angiogram sign and patchy consolidation.

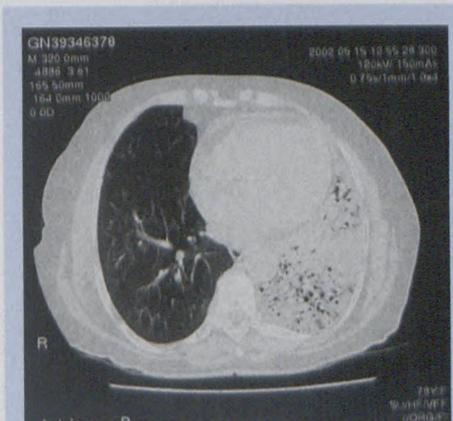


Fig. 4 Axial CT showing squeezing and bending of air bronchograms.

CT scan

One hundred millilitres of intravenous iopromide was used (300 mg, Schering, Berlin, Germany) for contrast studies of the chest. Non-contrast studies were also performed. Chest CT photographed on both lung

and mediastinal windows demonstrated the CT angiogram sign.¹ Attenuation of the lobe was heterogeneous.¹ Multiple air bronchograms were seen.^{1,2} There was dilatation, stretching, sweeping, widening of the angle and crowding of bronchi.¹

A pleural effusion was noted.

Discussion

Our patient had specific signs of bronchoalveolar consolidation which include squeezing, stretching and sweeping patent air bronchograms within the consolidated lung.³ The 'crazy paving' pattern is due to thick-

ening of the interlobular septae.³ All these changes, due to unique lepidic growth of the tumour were also noted.⁴

Our patient did not have satellite lesions or bulging tissues, which increase the likelihood of bronchoalveolar carcinoma (BAC). Other absent signs were pseudocavitation, air fluid level in cavities and marginal enhancement.^{4,5}

Although the CT angiogram sign was present it is also seen in pneumonia, and is therefore nonspecific.^{4,6}

References

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Occult spinal dysraphism

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Case presentation

A 2-month-old male patient presented to our outpatient's department with a diffuse back swelling. The child is the fifth in a family with no history of congenital abnormalities.

The pregnancy went full term and

was a normal vaginal delivery.

A diffuse swelling was noted in the midline in the lumbar region. The mass was covered with normal skin, with no discolouration, hair, sinus or ulceration. It had a soft, fatty feel on palpation.

There was no neurological dysfunction.

Plain film X-rays of the spine demonstrated spina bifida involving the whole spine with sparing of only T12, L1, L2 and L3 (Figs 1 and 2).

The defects were more pronounced in the upper cervical and sacral areas. The spinous processes in the thoracic and lumbar areas were visualised though they were not fused. A CT scan reconstruction of the

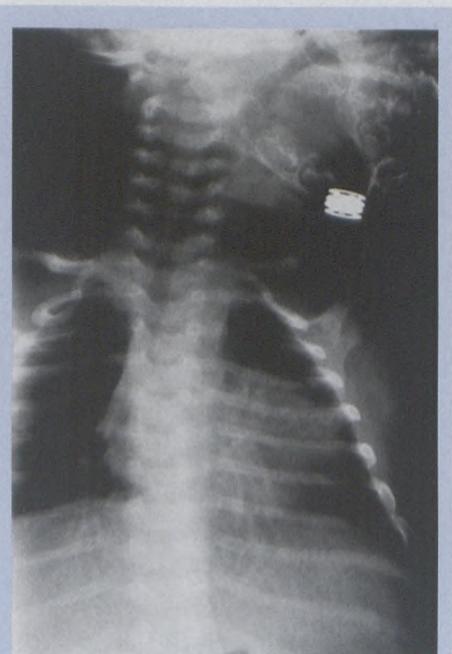


Fig. 1 AP spinal X-ray of the cervical and thoracic spine showing the extensive spina bifida involving both regions.

whole spine demonstrated the spina bifida (Figs 3 and 4).

MRI findings showed a normal cord from the cervical to the sacral level.