Thorax 1983;**38**:953–954

Solitary pulmonary metastases in carcinoma of the cervix

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Pulmonary metastatic disease from carcinoma of the cervix is relatively rare; when it does occur it is usually in the form of multiple nodules, which are readily discernible on a chest radiograph.[1 2] These pulmonary lesions are usually part of more widespread metastatic disease and management is frequently confined to relief of symptoms. In contrast, for the rarer solitary pulmonary metastasis surgical intervention offers the possibility of total eradication of disease and cure. We report two patients with solitary metastases in whom surgical resection was performed. In one patient this has been associated with prolonged survival.

Case reports

Case 1

A 28 year old unmarried, non-smoking woman presented in January 1982 with a six month history of blood stained vaginal discharge, urinary frequency, and vague backache. A diagnosis of stage IIb cervical carcinoma was made on clinical criteria and histological examination confirmed a poorly differentiated squamous cell carcinoma. A lymphangiogram, intravenous pyelogram, and chest radiograph were normal. She was treated with radical radiotherapy and two endocervical radioactive caesium implants. When reviewed in April 1982 she appeared well and disease free. Six months later she presented with cough and purulent sputum, weight loss, and fever. There appeared to be no pelvic recurrence but her radiograph now revealed a cavitating lesion subapically in the right lower lobe (fig 1). Cytological examination of the sputum gave negative results. Fibreoptic bronchoscopy showed normal endobronchial appearances except for inflammation of the medial basal segment of the right lower lobe, which was plugged by an endobronchial lesion. Examination of biopsy specimens confirmed that this was a poorly differentiated squamous cell carcinoma compatible with a cervical origin. There was no clinical evidence of metastases elsewhere and a bone scan, a computed tomography scan of chest and abdomen, and liver function test values were all normal. At thoracotomy there was a mass in the subapical region of the right lower lobe with no hilar node enlargement; a right lower lobectomy was performed. Histological examination confirmed the bronchoscopic diagnosis, showing a submucosal tumour which in places had eroded into the bronchial lumen. The patient made an uneventful recovery and remained well until March 1983, when she developed an ischiorectal abscess secondary to carcinomatous involvement.

Case 2

A 22 year old married woman had a stage I squamous cell carcinoma of the cervix diagnosed in 1964. This was treated by hysterectomy and local radiotherapy and she remained well with no evidence of recurrence until 1969, when she developed a cough with occasional streaky haemoptysis. Her chest radiograph showed a lingular opacity, which was cavitated. No other abnormalities were seen and no endobronchial lesions were apparent at rigid bronchoscopy. There was no evidence, clinically or from investigations, of extrathoracic metastases; an isotopic liver scan was normal. At operation a 5 cm mass was detected in the lingula, with no obvious hilar node or pleural disease. A lingulectomy was performed. Histological examination showed metastatic squamous cell carcinoma with extensive necrosis and a chronic inflammatory reaction.

In 1977 a pelvic recurrence was treated with both local and external radiotherapy and she has subsequently remained well and apparently disease free.

Discussion

Carcinoma of the cervix metastasises most commonly by direct paracervical extension and via the lymphatics.[3 4] Distant metastases are rare, but when they do occur the lung has been reported to be affected in up to 37% of patients and in the case of solitary metastases to be the organ most commonly affected.[5]

The two patients described in this report are atypical in several respects. Both had solitary lesions with cavitation—a feature which is rare in all secondary tumours,[6] but especially so in metastatic carcinoma of the cervix.[7] In the first patient the diagnosis was initially made by bronchoscopic biopsy of an endobronchial abnormality. Endobronchial metastatic disease is well recognised, particularly in patients with carcinoma of the breast or colon;[8] but we could find only seven cases in published papers of this kind of metastasis in carcinoma of the cervix.[8 9] Our patients were diagnosed as having stage I or II disease, and both stages are infrequently associated with any form of pulmonary spread (4% and 13%)—unlike stage IV, in which up to 57% of patients may have pulmonary lesions.[2]

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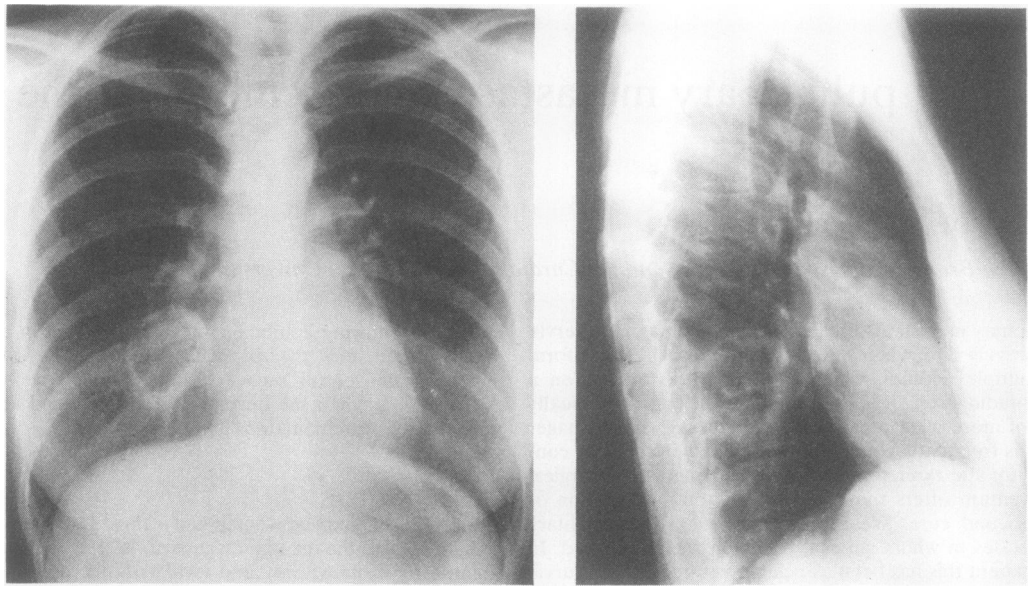
Accepted 15 July 1983



Cavitating lesion in the subapical segment of the right lower lobe of a patient with metastatic carcinoma of the cervix.

These cases suggest that an aggressive approach in dealing with a solitary pulmonary metastasis may be worthwhile provided that local primary disease is well controlled. The implications in cervical carcinoma are important, particularly in view of the known poor survival rate in patients with recurrent local or distant disease.[10] Physicians should be particularly aware of the possibility of metastatic cervical carcinoma in any woman with a solitary pulmonary nodule, irrespective of whether she is known to have a primary lesion. This approach will become more important as the frequency of carcinoma of the cervix in young women and the mortality associated with it have increased over the last few years[11] and pulmonary metastases may become more common.

We would like to thank Drs JC Batten and VM Dalley and Mr M Paneth for allowing us to publish details of their patients.

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