Medullary carcinoma of the thyroid presenting as multifocal bronchial carcinoid tumour

J E Clague, M G Pearson, A Sharma, W Taylor

Abstract
A 21 year old man presented with diarrhoea and flushing after meals and diarrhoea. Extensive investigations, including thyroid function tests (thyroxine, thyroid stimulating hormone) and hormone assays for gastrin, glucagon, vasoactive intestinal peptide, neutrosenin, and pancreatic polypeptide, gave normal results, as did urine analysis for 5-hydroxyindoleacetic acid and vanillylmandelic acid. A small bowel meal and follow through showed only intestinal hurry; sigmoidoscopy and rectal biopsy showed nothing abnormal.

The patient was lost to follow up for two years, after which he returned complaining of pain in the right iliac fossa and weight loss (10 kg in one year). A marfanoid habitus and wasting and weakness of proximal muscles were noted. He had no chest symptoms. Abdominal examination showed guarding in the right iliac fossa. A chest radiograph showed miliary opacities (fig 1). Pulmonary function testing gave results within normal limits apart from reduced transfer factor for carbon monoxide (60% predicted). Transbronchial biopsy showed nodular foci of amyloid in the bronchial, vascular, and alveolar walls, confirmed by Congo red staining and electron microscopy. Between the amyloid nodules were collections of regular cells with rounded or oval nuclei and moderate amounts of eosinophilic cytoplasm (fig 2). Immunohistochemical staining with neurone specific enolase indicated that the cells were producing polypeptide and a diagnosis of multifocal bronchial carcinoid tumour of the lung was considered.

The patient subsequently developed a mass in the right iliac fossa, rectal bleeding, and a raised white cell count. At laparotomy caecal diverticulitis and abscesses were found. He underwent a hemicolectomy and died seven weeks later of persistent abdominal sepsis.

At necropsy a medullary carcinoma of the thyroid was found. The right lobe and isthmus of the thyroid were replaced by a hard waxy mass of tumour invading adjacent thyroid tissue and extrathyroid fat. Cervical, mediastinal, and abdominal lymph node metastases were present. The lungs contained multiple miliary tumour nodules, mainly less than 1 mm in diameter but up to 2 mm on the pleural surface. The metastases in the mediastinal lymph nodes contained large, waxy amyloid masses. Amyloid was found only in relation to the primary tumour and metastases. Tumour specimens gave positive immunohistochemical reactions only for calcitonin, calcitonin gene related peptide, chromagranin, and protein gene product. Examination of the parathyroid and adrenal glands showed no evidence of tumour.

Discussion
In 1976 Skinner and Ewen reported “multifocal bronchial carcinoid tumour” in a young man with flushing, diarrhoea, and weight loss, who died about 10 years later without a postmortem examination (Ewen, personal communication). Our case is strikingly similar. One other report of miliary pulmonary carcinoid tumour with amyloid has been published, the authors of which suggest the possibility of tumour origin from the C cells of the thyroid.
Anti-basement membrane antibody disease with severe pulmonary haemorrhage and normal renal function

A Tobler, E Schürch, H J Altermatt, V Im Hof

Abstract
A case of anti-basement membrane disease with severe pulmonary haemorrhage and normal renal function is reported.

In 1919 Goodpasture described a syndrome of glomerulonephritis and pulmonary haemorrhage. Half a century later both manifestations were shown to be induced by circulating autoantibodies that reacted with alveolar and glomerular basement membranes. We present a case with severe pulmonary haemorrhage mediated by anti-basement membrane antibody in which renal function was normal.

Case report
A previously healthy 20 year old cigarette smoking farmer was referred complaining of dyspnoea and progressive haemoptysis of four days' duration after accidental exposure to fumes of fungicides containing metalaxyl (8%) and mancozeb (64%). He was pale, weak, sweating, and febrile (38.5°C). His pulse rate was 104/min, blood pressure 110/50 mm Hg, and respiratory rate 26/min. A chest radiograph showed diffuse fluffy infiltrates predominantly in the lower lobes. The erythrocyte sedimentation rate was 80 mm in one