Pulmonary cannonballs and more like never before

Mohammed H AlShati

CASE
A 44-year-old man presented to hospital with haemoptysis and progressive dyspnoea. Examination revealed room air oxygen saturation of 91% with diffuse chest crackles, gynaecomastia and hepatosplenomegaly. Scrotal examination was unremarkable. Radiological investigations revealed numerous bilateral pulmonary nodules of variable size (cannonball appearance) (figure 1), gynaecomastia (figure 2A), hepatosplenomegaly and a large retroperitoneal mass (figure 2B). Scrotal ultrasound showed no abnormalities.

Simple urine pregnancy testing was positive, and serum levels of β-human chorionic gonadotropin (β-HCG) and α-fetoprotein were markedly elevated. Transbronchial and retroperitoneal biopsies confirmed the diagnosis of metastatic extragonadal choriocarcinoma and prompt chemotherapy was initiated; however, the patient died shortly thereafter from respiratory failure.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; internally peer reviewed.
Learning points

- Choriocarcinoma is a malignant germ cell tumour that usually arises from the gonads and secretes the tumour marker β-HCG. Extragonadal sites of origin are less common and occur mainly along the embryonal midline axis, which includes the prostate, urinary bladder, retroperitoneum, mediastinum and pineal body.
- The lung is a common metastatic destination for choriocarcinoma. Other differential diagnoses for cannonballs include various infections (septic emboli, multiple abscesses, tuberculosis, nocardia, histoplasmosis, coccidioidomycosis and hydatid cysts); rheumatological diseases (Wegener’s granulomatosis, rheumatoid nodules); arteriovenous malformations; and other malignant secondaries (lung, breast, kidney, head and neck, gut and sarcoma).
- Urine pregnancy testing, a simple and quick method, can be very useful in providing a clue to the diagnosis.¹
- Definite diagnosis is made by biopsy, which demonstrates dual population of malignant cells (cytotrophoblasts and syncytiotrophoblasts), with positive staining for β-HCG immunoperoxidase.
- Germ cell tumours are sensitive to chemotherapy, thus urgent treatment is essential.
- Despite available treatment options of chemotherapy, radiotherapy and surgical resection, prognosis is usually poor in patients with far-advanced widespread disease.²
- Non-pulmonary visceral metastasis and marked elevation of tumour markers are considered as poor prognostic features.²

REFERENCES


Pulmonary cannonballs and more like never before

Mohammed H AlShati

Thorax 2014 69: 200-201 originally published online March 20, 2013
doi: 10.1136/thoraxjnl-2012-203188

Updated information and services can be found at:
http://thorax.bmj.com/content/69/2/200

These include:

References
This article cites 2 articles, 1 of which you can access for free at:
http://thorax.bmj.com/content/69/2/200#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

Thorax Images in Thorax (149)
Screening (oncology) (407)
Radiology (diagnostics) (812)
Drugs: infectious diseases (968)
Hemoptysis (80)
Inflammation (1020)
Interstitial lung disease (559)
Journalology (123)
Vascularitis (53)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/