JOURNAL CLUB

Fibulin-3 as a blood and effusion biomarker for pleural mesothelioma

This study investigated whether plasma and pleural effusion levels of fibulin-3 (an extracellular glycoprotein found to be expressed by mesothelioma cells) could be used to differentiate pleural mesothelioma from other pleural effects of asbestos exposure; benign pleural effusions, pleural effusions from other malignancy and healthy controls. Previously identified biomarkers have shown unacceptable sensitivity and specificity.

In two cohorts plasma fibulin-3 levels were significantly higher in mesothelioma patients than in the other groups. An overall comparison of patients (with and without mesothelioma) showed that the receiver-operating-characteristic curve had a sensitivity of 96.7% and specificity of 95.5%. Importantly, levels did not vary according to age, sex, duration of asbestos exposure or radiographic change.

Fibulin-3 levels in mesothelioma related pleural effusions were also shown to be significantly higher than those effusions from other causes (including other malignancies). Samples from both cohorts were identified prospectively and it is not clear why only some patients had plasma fibulin-3 levels measured. Blinded validation was performed with plasma specimens from a separate cohort.

Compared with previous attempts to identify biomarkers these results show promise. However, numbers in this study are small and there appears to have been selection bias in the samples analysed. If larger international studies can validate these findings then it has important implications for the role of early surgical or medical intervention in mesothelioma, and also for the financial compensation available to patients.


James Murray

Correspondence to Dr James Murray, ST3, Department of Respiratory Medicine, King George Hospital, Barley Lane, Ilford, London IG3 8YB, UK; jamesmurray@doctors.org.uk

To cite Murray J. Thorax 2013;68:1180.

Published Online First 7 March 2013

Thorax 2013;68:1180. doi:10.1136/thoraxjnl-2013-204603a
Fibulin-3 as a blood and effusion biomarker for pleural mesothelioma

James Murray

Thorax 2013 68: 1180 originally published online March 7, 2013
doi: 10.1136/thoraxjnl-2013-203396

Updated information and services can be found at:
http://thorax.bmj.com/content/68/12/1180

These include:

References
This article cites 1 articles, 0 of which you can access for free at:
http://thorax.bmj.com/content/68/12/1180#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.

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/