

## LETTER TO THE EDITOR



## Response to the Letter by Dr. Julio Collazos

J. Fortún\*

*Servicio de Enfermedades Infecciosas, Hospital Ramón y Cajal, Crtra Colmenar km 9,1, 28034, Madrid, Spain*

Dear Editor,

We thank Dr. Collazos [1] for his interest in our recent article describing the potential role of serum Ca-125 determination in patients with pulmonary tuberculosis [2].

Collazos raises the issue of whether pleural effusions are frequently associated with increased serum concentrations of Ca-125 in several non-neoplastic conditions, including ascitis in patients with liver disease [3]. In our report, pleural effusion was present in 4/35 (11%) and 8/54 (15%) of cases and controls, respectively. No significant association was found between Ca 125 levels >32.5 IU/mL and pleural effusion; although all patients with pleural effusion showed serum Ca-125 levels >40 IU/ml (range: 40-124). Patients with tuberculosis had larger amounts of pleural fluid than controls and showed slightly higher serum Ca-125 levels, although this was not significant. Ca 125 levels were determined during follow-up for only 1 patient with tuberculosis and a reduction in levels was observed.

The distribution of Ca125 levels was non-Gaussian, and four patients in the tuberculosis group had Ca125 levels >350 IU/ml. However, the results were not biased towards these patients. Sixty two percent of patients with tuberculosis and only 26% of patients in the control group had serum Ca125 levels >32 IU/ml. For Ca125 levels >50 IU/ml, sensitivity was 43% and 9%, respectively; and for Ca125 levels >100 IU/ml, sensitivity was 26% and 2%, respectively.

ROC curves were used to determine the optimal cut-off value of serum Ca-125. Most continuous variables were categorized and the association between categorical variables was performed using Chi-squared tests.

Only one patient in our series had negative sputum smears. For this reason, our conclusion about the usefulness of Ca125 in tuberculous patients with negative sputum smears is only theoretical and more data are needed to establish this recommendation.

We agree to evaluate the real value of Ca125 serum levels in pulmonary tuberculosis, sounder conclusions may be obtained if patients with pleural effusions are excluded. This does not represent an important limitation because in patients with a pleural effusion other tests, such as pleural ADA (adenosine deaminase) levels have a high sensitivity, specificity and diagnostic efficiency [4].

## REFERENCES

- [1] Collazos J. Is the determination of Ca-125 serum levels useful for the diagnosis of pulmonary tuberculosis? *Open Respir Med J* 2010; 4: 15-6.
- [2] Fortún J, Martín-Dávila P, Méndez R, *et al.* Ca-125: a useful marker to distinguish pulmonary tuberculosis from other pulmonary infections. *Open Respir Med J* 2009; 3: 123-7.
- [3] Collazos J, Genolla J, Ruibal A. CA 125 serum levels in patients with non-neoplastic liver diseases. A clinical and laboratory study. *Scand J Clin Lab Invest* 1992; 52: 201-6.
- [4] Aoki Y, Katoh O, Nakanishi Y, *et al.* A comparison study of IFN-gamma, ADA, and CA125 as the diagnostic parameters in tuberculous pleuritis. *Respir Med* 1994; 88(2): 139-43.

\*Address correspondence to this author at the Servicio de Enfermedades Infecciosas, Hospital Ramón y Cajal, Crtra Colmenar km 9,1, 28034, Madrid, Spain; E-mail: fortun@ono.com

Received: January 24, 2010

Revised: February 12, 2010

Accepted: February 15, 2010

© J. Fortún; Licensee *Bentham Open*.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.