Title:
Chronic intestinal pseudo-obstruction: diagnostic and prognostic utility of ANNA-1/Anti-Hu onconeural antibodies

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Chronic intestinal pseudo-obstruction: diagnostic and prognostic utility of ANNA-1/Anti-Hu onconeural antibodies

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Dear Editor:

We propose an algorithm for the early detection of cancer from a case of paraneoplastic syndrome (Figure 1).

CASE PRESENTATION

A 65-year-old woman who, in the context of dyspepsia and dismotility, was diagnosed with chronic intestinal pseudo-obstruction (CIPO) in small cell lung carcinoma (SCLC). In spite of a remarkable tumor response after the combination of chemotherapy and immunotherapy, an intestinal sepsis led to the patient’s sudden death.

DISCUSSION

Paraneoplastic neurological syndromes (PNS) are rare disorders which origin lies in the onconeural antibodies. The most representative example comprises ANNA-1/Anti-Hu onconeural antibodies, intimately linked to SCLC (1). These antibodies are the cause of the CIPO syndrome, characterized by recurrent symptoms that simulate intestinal obstruction but in the absence of an anatomic lesion. In more than 80% of cases, this symptomatology precedes the direct manifestations of the underlying neoplasia. This might lead to an early diagnosis of the plausible tumor through the study of ANNA-1/Anti-Hu onconeural antibodies in serum or spinal fluid, which could acquire clinical utility for early diagnosis of cancer (1,2).
From a therapeutic point of view, surgical resection of the non-functioning gut segment and anticholinesterases are the only therapeutic alternatives for CIPO (3). Furthermore, ANNA-1/Anti-Hu antibodies and the activation of adaptive immunity set forth a close connection (1,2,4). This would explain their association with an improved survival rate in SCLC (5).

In summary, ANNA-1/Anti-Hu onconeural antibodies are serological markers of neurological paraneoplastic autoimmunity. Their diagnostic and prognostic usefulness in SCLC would originate from the intrinsic immune alteration that occurs within these tumors, and could lead us to interpret paraneoplastic CIPO and the group of PNS as "autoimmune diseases with anti-tumor potential".

The authors declare no conflict of interest.

REFERENCES

Figure 1.
Proposal for a prospective and multi-center study carried out in order to validate the clinical utility of ANNA-1/Anti-Hu onconeural antibodies in the early diagnosis of cancer.