Is phrenic nerve conduction affected in patients with difficult-to-treat asthma?

ABSTRACT

Objective

The aim of this study was to obtain data on phrenic neuroconduction and electromyography of the diaphragm muscle in difficult-to-treat asthmatic patients and compare the results to those obtained in controls.

Methods

The study consisted of 20 difficult-to-treat asthmatic patients compared with 27 controls. Spirometry, maximal inspiratory and expiratory pressure, chest X-ray, phrenic neuroconduction and diaphragm electromyography data were obtained.

Results

The phrenic compound motor action potential area was reduced, compared with controls, and all the patients had normal diaphragm electromyography.

Conclusion

It is possible that a reduced phrenic compound motor action potential area, without electromyography abnormalities, could be related to diaphragm muscle fiber abnormalities due to overload activity.