

“The end of N-acetylcysteine (NAC) in the treatment of IPF?”

Not all IPF studies reported at the 2014 American Thoracic Society conference were positive: the PANTHER-IPF trial, investigating use of the antioxidant supplement N-acetylcysteine (NAC), yielded disappointing efficacy and safety data.

Due to a lack of other options and some previously encouraging clinical results, NAC has been prescribed for many IPF patients in recent years. In the current study, however, patients treated with NAC over 60 weeks showed no significant benefit relative to the placebo-treated group, with regard to lung function decline, acute disease exacerbations, or overall survival. In addition, patients on NAC were found to experience cardiac disorders more often than patients on placebo (6.8% versus 1.5%, respectively).

“These results tell us with pretty clear certainty that NAC is not indicated in the treatment of IPF,” says Dr. Shane Shapera, respirologist at the Toronto General Hospital.

“In a disorder in which you’re grasping for straws – NAC was one of those straws,” suggested Dr. Jeffrey Drazen, editor-in-chief at the New England Journal of Medicine, the journal that published the PANTHER-IPF study. The findings are especially disappointing since NAC was a very economical and easily accessible option for IPF patients across Canada.

The PANTHER-IPF study was originally designed as a three-arm trial to compare a combination of azathioprine, NAC, and prednisone with placebo and NAC alone. However, in 2011, the National Institutes of Health in the US stopped the combination therapy part of the study because of an increased risk of deaths and hospitalizations. The other two arms – placebo and NAC monotherapy – were allowed to continue, and it is these results that have now been published.

Still unclear is how respirologists across Canada will apply these results in their own practice. However, Dr. Shapera, who estimates that 90% of IPF patients currently under his care are on NAC, has made up his mind: “When I get back from the conference, I will recommend that all my patients on NAC stop taking it.”