Encourage cough to breath easy

NEW(S)

The more your patient coughs, less the money he/she coughs out. True! It is a proven finding. ACE inhibitors reduce risk of pneumonia.[1]

(RE)VIEWS

Following a systematic review, Portuguese researchers have suggested that angiotensin-converting enzyme (ACE) inhibitors (not angiotensin receptor blockers [ARBs]) have a protective role against the risk of pneumonia and a decrease in pneumonia-related mortality, the later albeit, of poor strength.

There was a 34% and 27% reduction in the risk of pneumonia and pneumonia-related mortality, respectively, with ACE inhibitor therapy compared to controls. However, this risk was same in patients who did or did not use ARBs. ACE inhibitors showed a significant 30% reduction in risk of pneumonia compared to ARBs use. The risk reduction was 54% and 37% in stroke and heart failure patients (who were at higher risk of pneumonia), respectively, which was significantly higher in Asian patients.[2]

ACE inhibitors have been suggested to influence the pattern of release of anti-inflammatory cytokines that could reduce the severity of and mortality due to pneumonia.[3]

Bradykinin and substance P sensitize the airway sensory nerves and enhance the cough reflex.[4] An enhanced cough reflex not only protects the tracheobronchial tree but also improves swallowing thus avoiding the exposure of the respiratory tract to oropharyngeal secretions (especially in post-stroke patients) and attendant aspiration pneumonia.[5]

Genetic differences in ACE polymorphisms between Asian (with increased levels of serum ACE inhibitors and catabolism of kinins) and non-Asian patients have been suggested to explain the difference in protective effects.

When the need arises, ACE inhibitors may be preferred to the expensive ARBs in patients at risk for pneumonia, irrespective of ethnicity.

If a patient on ACEI develops cough, he/she may be encouraged (provided it is tolerable), telling that they have 50% less chance of catching pneumonia. Forewarn that cough is a beneficial (un)wanted effect.

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