Journal Article

Management of chronic refractory cough in adults

Chronic cough, defined as a cough lasting more than eight weeks, is a common symptom that can significantly impair quality of life. In most cases, chronic cough is associated with identifiable conditions, such as asthma, GERD, or medication use (ex: ACE inhibitors) and typically improves with appropriate treatment of the underlying cause. However, a subset of patients experience chronic refractory cough (CRC), in which symptoms persist despite optimal management, or have unexplained chronic cough with no identifiable etiology. These conditions are increasingly understood through the concept of cough hypersensitivity syndrome, where heightened sensitivity of the cough reflex leads to persistent symptoms even with minimal stimuli.

Management of chronic cough begins with a structured diagnostic approach to identify and treat underlying causes. When cough remains persistent or unexplained, treatment shifts toward symptomatic control, including both non-pharmacologic and pharmacologic strategies. Non pharmacologic therapy, particularly speech pathology interventions, plays an important role and includes education, cough suppression techniques, breathing exercises, and vocal hygiene. These approaches help patients gain control over coughing and reduce laryngeal irritation, with studies showing improvements in cough frequency and quality of life. Such therapies are especially useful in patients with laryngeal dysfunction or those seeking alternatives to medication.

Pharmacologic treatment for CRC focuses on neuromodulators, which target the heightened neural sensitivity underlying the cough reflex. Medications such as gabapentin and pregabalin are commonly used and have demonstrated effectiveness in reducing cough severity and improving quality of life, although side effects like dizziness and fatigue may occur. Other agents, including dextromethorphan and amitriptyline, have limited or inconsistent evidence. Importantly, combining pharmacological therapy with speech therapy may provide enhanced and longer lasting symptoms relief.

Emerging therapies are targeting specific neural pathways involved in cough hypersensitivity, particularly P2X3 receptor antagonists, which have shown promising results in reducing cough frequency in early trials. However, these treatments are still under investigation and further research is required. Overall, the management of chronic refractory cough requires a multidisciplinary, patient centered approach, balancing symptom control with potential side effects, and incorporating non-pharmacologic and pharmacologic therapies to improve outcomes.