

therapeutic option for patients with the myeloproliferative variant, particularly in individuals with the *Fip1L1-PDGFR* gene fusion. Anti-IL-5 therapy with mepolizumab or benralizumab also holds promise for these patients and is currently being investigated.

■ ALLERGIC BRONCHOPULMONARY ASPERGILLOSIS

Allergic bronchopulmonary aspergillosis (ABPA) is an eosinophilic pulmonary disorder that occurs in response to allergic sensitization to antigens from *Aspergillus* species fungi. The predominant clinical presentation of ABPA is an asthmatic phenotype, often accompanied by cough with production of brownish plugs of mucus. ABPA has also been well described as a complication of cystic fibrosis. A workup for ABPA may be beneficial in patients who carry a diagnosis of asthma but have proven refractory to usual therapy. ABPA is a distinct diagnosis from simple asthma, characterized by prominent peripheral eosinophilia and elevated circulating levels of IgE (often >1000 IU/mL). Establishing a diagnosis of ABPA also requires establishing sensitivity to *Aspergillus* antigens by skin test reactivity and/or direct measurement of circulating specific IgE to *Aspergillus*. Positive serum precipitins for *Aspergillus* or direct measurement of circulating specific IgG to *Aspergillus* can be used as an adjunct diagnostic criterion. Central bronchiectasis is described as a classic finding on chest imaging in ABPA but is not necessary for making a diagnosis. Other possible findings on chest imaging include patchy infiltrates and evidence of mucus impaction.

Systemic glucocorticoids may be used in the treatment of ABPA that is persistently symptomatic despite the use of inhaled therapies for asthma. Courses of glucocorticoids should be tapered over 3–6 months, and their use must be balanced against the risks of prolonged steroid therapy. Antifungal agents such as itraconazole and voriconazole given over a 4-month course reduce the antigenic stimulus in ABPA and may therefore modulate disease activity in selected patients. Newer azole agents may be used as well. The use of monoclonal antibody against IgE (omalizumab) has been described in treating severe ABPA, particularly in individuals with ABPA as a complication of cystic fibrosis. Other monoclonal antibodies used in severe eosinophilic asthma, such as those