

Bronchopulmonary dysplasia: Myths of pharmacologic management

Steven M. Donn

University of Michigan, USA

Bronchopulmonary Dysplasia is the most common long-term respiratory morbidity of preterm infants. While its pathophysiologic and histologic features have changed over time as neonatal demographics and respiratory therapies have evolved, it is now thought to be characterized by impaired distal lung growth and abnormal pulmonary microvascular development. It is believed to result from inflammatory and mechanical/oxidative injury from chronic ventilator support in fragile, premature lungs susceptible to injury from surfactant deficiency, structural abnormalities, inadequate antioxidant defenses and a chest wall that is more compliant than the lung. In addition, non-pulmonary issues may adversely affect lung development, including systemic infections and insufficient nutrition. Once BPD has developed, its management often involves treatment with a wide variety of agents despite an alarming lack of evidence for either safety or efficacy, including anti-inflammatories, diuretics, steroids, pulmonary vasodilators, antioxidants, and molecules involved in the cell signaling cascade.

Biography

Steven M. Donn is a neonatologist and pediatrician in Ann Arbor, University of Michigan. He received his medical degree from Tulane University and has been in practice for more than 20 years.