Acute Respiratory Distress Syndrome

Acute respiratory distress syndrome (ARDS) is a sudden and dangerous illness that makes it difficult to get enough oxygen.

In ARDS, tiny blood vessels in the lung become leaky, causing fluid to fill up the smallest air sacs in the lung (called alveoli). This fluid prevents the lungs from effectively providing oxygen to the rest of the body and clearing carbon dioxide out of the lungs. ARDS can be life-threatening; many patients with ARDS require life support with a ventilator in an intensive care unit to help them breathe.

Risk Factors for Development of ARDS

Patients get ARDS after developing another sudden medical or surgical problem that is often so serious that the patient depends on machines and therapies to keep him or her alive in an intensive care unit (ICU). These conditions include

- A dangerous infection in the body (sepsis) or in the lungs (pneumonia)
- A severe injury or burn requiring critical care
- Inflammation of the pancreas (pancreatitis)
- Problems from inhaling substances like smoke, chemicals, or vomit
- Other serious illnesses

Treatment of ARDS

Many patients who develop ARDS need a ventilator, a machine that delivers oxygen through a breathing tube (endotracheal tube). Some patients become so sick that they may need medications that make them less awake or even paralyze them so the ventilator can be as safe and useful as possible. Some patients may need to be turned in the bed from their back to their stomach (placed prone), and the sickest patients may require a machine that takes over the work of their heart and lungs (extracorporeal membrane oxygenation). Sometimes, even these measures may not be able to provide enough oxygen to the body, and if this is the case, organs such as the brain and heart may be damaged.

ARDS is very dangerous. When patients need life support, they may develop new problems from being so ill and in the hospital. Common problems are collapsed lung (pneumothorax), infections from any large intravenous catheter or from the ventilator itself, a blood clot from lying still in the hospital bed, or injury and scarring to the lungs.

Long-term Effects of ARDS

More and more patients are surviving ARDS. Patients can have lasting effects from being so sick. Most patients find that they are weak and have breathing problems. Some patients get better over several months, while others find that they continue to have limitations for the rest of their lives. Patients and family members may also feel depressed, and some patients have disturbing memories associated with the trauma of being so seriously ill. Many ARDS survivors need ongoing care, including mental health support and physical or occupational therapy.

FOR MORE INFORMATION

- American Thoracic Society
- Chest Foundation

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