Cystic fibrosis and Crohn's disease treated successfully with infliximab

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A research team from Italy reported a case of a 23-year-old patient suffering from cystic fibrosis (CF) and Crohn's disease who was successfully treated with infliximab. This case report was thought to be one of the first regarding the use of biological therapy in patients with CF.

Cystic fibrosis (CF) is the most common life-threatening autosomal recessive disease in Caucasian children; it has an incidence of 1 case in every 2500 children born alive. CF involves an anomalous function of the exocrine glands, caused by a mutation of a gene (cystic fibrosis transmembrane conductance regulator, CFTR) located on chromosome 7, which codes for a protein involved in ion transport through the cell membrane.

Pulmonary complications are the most common causes of mortality, but the presenting symptoms are very often linked to gastrointestinal and pancreatic biliary diseases. These are mainly caused by the unusual viscosity of the secretions in hollow organs and in the ducts of solid organs. Crohn's dis-ease (CD) is a chronic inflammatory bowel disease which may be localized throughout the gastrointestinal tract. The association between CD and CF is known; there are reports of a prevalence of CD in patients suffering from CF 17 times higher than in controls.

A research article to be published on April 21, 2010 in the World Journal of Gastroenterology addresses this question. A research team led by Professor Gian Luigi de' Angelis, reported the first case of a patient with CF and CD treated with infliximab.

After initiation of infliximab in this patient, there was an improvement of colonic lesions and general condition without any infective complication and particularly without any decline of lung function.

This report confirms the preliminary data regarding the possibility that airway inflammation in CF plays a crucial role in lung damage and that the inflammation is mediated by tumor necrosis factor alpha. Therefore, the use of anti-tumor necrosis factor alpha antibody improved CD and did not generate any complications of lung function, perhaps promoting an anti-inflammatory effect both on colon and lung.


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