

Referenzen einiger neuerer Papers über CF aus der Schweiz 2005/2006

compiled and short comments by M.H. Schöni April 2006

Ventilation inhomogeneities in relation to standard lung function in patients with cystic fibrosis. Kraemer R, Blum A, Schibler A, Ammann RA, Gallati S. *Am J Respir Crit Care Med* 171: 371-378, 2005 : 142 CF serial lung function observation 6-20 years. *Lung Clearance Index (LCI) earliest and strongest factor for lung function deterioration, second MEF50 third FRC (plethysmography.)*

Inducible NO synthetase expression is low in airway epithelium from young children with CF Moeller A, Horak FJ, Lane C, Knight D, Kicic A, Brennan S, Franklin P, Terpolilli J, Wildhaber JH, Stick SM. *Pediatr Pulmonol.* 2006 41:184-7. *Measuring exhaled breath condensates in infants*

Exhaled nitric oxide is not reduced in infants with cystic fibrosis. Franklin PJ, Hall GL, Moeller A, Horak F Jr, Brennan S, Stick SM. *Eur Respir J.* 2006;27:350-3. *Low iNOS, NO in infants normal*

Risk factors for allergic bronchopulmonary aspergillosis and sensitisation to Aspergillus fumigatus in patients with cystic fibrosis. Ritz N, Ammann RA, Casaulta Aebischer C, Schoeni-Affolter F, Schoeni MH. *Eur J Pediatr.* 2005;164:577-82. *160 CF, 7% APBA, 13% sensitized, risk factors are: Stenotrophomonas, corticosteroids, early Ps.aeruginosa.*

Time course of antibody response to recombinant Aspergillus fumigatus antigens in cystic fibrosis with and without ABPA. Casaulta C, Flückiger S, Cramer R, Blaser K, Schoeni MH. *Pediatr Allergy Immunol.* 2005;16:217-25. *74 patients followed 32 months, 23 ABPA serologically, 11 with full clinical symptoms, Increase of rAspf 4 and 6 had 100% specificity and 64% sensivity for ABPA. Under therapy total IgE, rAspf 4 and 6 decreased but never normalized.*

Conductivity determined by a new sweat analyzer compared with chloride concentrations for the diagnosis of cystic fibrosis. Barben J, Ammann RA, Metlagel S, Schoeni MH. *J Pediatr.* 2005;146:183-8. *111 subjects 3 weeks to 60 years old, 94 test was successful, mean 36 mmol/L (range: 17-59) CF mean 115 mmol/L (range 92-137).*

Gap Junctional Communication Does not Contribute to the Interaction Between Neutrophils and Airway Epithelial Cells. Scerri I, Tabary O, Dudez T, Jacquot J, Foglia B, Suter S, Chanson M *Cell Commun Adhes* 2006 Jan-Apr;13:1-12. *Increasing evidence indicates that interaction between neutrophils and airway epithelial cells contributes to the modulation of the inflammatory response. Gap junctional communication does not contribute to neutrophil-airway epithelial cell interaction.*

Long-term cultures of polarized airway epithelial cells from patients with cystic fibrosis. Wiszniewski L, Jornot L, Dudez T, Pagano A, Rochat T, LacroixJS, Suter S, Chanson M. *Am J Respir Cell Mol Biol.* 2006; 34:39-48. *Airway epithelial cells isolated from nasal polyps and long-term cultures of the respiratory epithelium were generated. CF respiratory epithelia did not show increased production of mucins or of IL-8.*

Poly(ADP-ribose)polymerase activation mediates lung epithelial cell death in vitro but is not essential in hyperoxia-induced lung injury. Pagano A, Pitteloud C, Reverdin C, Metrailler-Ruchonnet I, Donati Y, Barazzone Argiroffo C. *Am J Respir Cell Mol Biol.* 2005;33: 555-64. *The regulation of Poly(ADP-ribose)polymerase-1 (PARP-1), a nuclear enzyme activated by DNA damage, and its relation to cell death during hyperoxia in vitro and in vivo was analyzed. In vivo, despite evidence of PARP activation in hyperoxia-exposed mouse lungs, absence of PARP-1 did not change the extent of lung damage, arguing for redundant oxidative stress-induced cell death pathways.*

Electrogastrography reveals post-prandial gastric dysmotility in children with cystic fibrosis. Schappi MG, Roulet M, Rochat T, Belli DC. *J Pediatr Gastroenterol Nutr.* 2004;39:253-6. *Of 14 CF 8.6 years old all showed gastric dysmotility, faster emptying not corrected by cisaprine. Towards the ideal quantitative pancreatic function test: analysis of test variables that influence validity.*

Towards the ideal quantitative pancreatic function test: analysis of test variables that influence validity. Schibli S, Corey M, Gaskin KJ, Ellis L, Durie PR. *Clin Gastroenterol Hepatol.* 2006;4:90-7. *More than 25% of the pancreatic-sufficient patients with impaired pancreatic function were misclassified as pancreatic insufficient when uncorrected output plus a shortened sampling time or enzyme concentration were used to define categories.*

Update on cystic fibrosis: selected aspects related to lung transplantation. Boehler A. *Swiss Med Wkly.* 2003; 22;133 :111-7. *Review.*

Body composition and adiponectin serum concentrations in adult patients with cystic fibrosis. Moriconi N, Kraenzlin M, Muller B, Keller U, Nusbaumer CP, Stohr S, Tamm M, Puder JJ. *J Clin Endocrinol Metab.* 2006 (pub. ahead). *Central fat accumulation is increased in CF and serum concentrations of adiponectin were higher.*

Interleukin- 15 in airway epithelial cell supernatants is sufficient to transform monocytes into dendritic cells. Regamey N, Obregon C, van Leer C, Schoeni MH, Nicod LP, Geiser T. *Proceedings of The American Society;* 2(2): A856, 2005, Abstract

Detection and management of early Pseudomonas aeruginosa infection in patients with cystic fibrosis. Kern Y, Sauty A, Roulet M. *Rev Med Suisse.* 2005 Mar 2;1(9):637-8, 640. *Review. French.*

Biological effects of a dietary omega-3 polyunsaturated fatty acids supplementation in cystic fibrosis patients: A randomized, crossover placebo-controlled trial. Panchaud A, Sauty A, Kern Y, Decosterd LA, Buclin T, Boulat O, Hug C, Pilet M, Roulet M. *Clin Nutr.* 2005 Dec 1; Epub ahead of print. *Studie bei 17 CF Patienten (18 Jahre im Mittel) erhielten doppel-blind, randomisiert entweder Omega-3 PUFA`s (390-1170mg/d) über 6 Monate oder nicht: Omega-3 PUFA`s werden in Zellmembranen der Neutrophilen eingebaut. Die Verminderung der LTB(4)/LTB(5) ratio lässt vermuten, dass Neutrophile weniger proinflammatorische Mediatoren aus dem Arachidonzyklus produzieren. Die Einnahme von omega-3 PUFA`s könnten einen anti-inflammatorischen Effekt haben.*

To treat or not to treat with antifungal agents? Schöni MH: Editorial. *Journal CF* 4: 213-214, 2005