*primary studies - published RCT*

# Effects of short-term inhaled fluticasone on oxidative burst of sputum cells in cystic fibrosis patients.

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### Study design (if review, criteria of inclusion for studies)

RCT

### Participants

26 stable patients (median+/-SD forced expiratory volume in one second (FEV1) 58.1+/-19.9% pred.). Study group (n=12), control group (n=14).

### Interventions

study group (500 microg b.i.d. of iInhaled corticosteroids, for three weeks) or the control group (n=14; nonsteroid medication). Sputum samples were obtained during inhalation of hypertonic saline (3%, 20 min), which was found not to alter the investigated sputum parameters.

### Outcome measures

clinical parameters, sputum leukocyte count, activity of myeloperoxidase, and superoxide anion release

### Main results

No significant changes in clinical parameters, sputum leukocyte count, activity of myeloperoxidase, and baseline superoxide anion release where observed following therapy. Surprisingly, stimulated superoxide anion release increased significantly after therapy (34.1+/-17.7 versus 25.2+/-17.4 nmol x hr(-1) x 10(6) cells, p

### Authors' conclusions

in adult cystic fibrosis patients short-term fluticasone therapy had no evident effect on clinical and sputum parameters. Further investigations are necessary to evaluate whether the observed up-regulation of oxidative capacity of inflammatory cells is of concern or benefit in these patients.

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### See also

Eur Respir J. 1999 Nov;14(5):1150-5.

### Keywords

Adolescent; Adult; Budesonide; Hormones; Inhalation OR nebulised; pharmacological_intervention; Pregnenediones; Respiratory Tract Diseases; Steroids; Anti-Inflammatory Agents;