DOES ASPIRIN REDUCE THE RISK OF COLORECTAL CANCER?

The regular use of Aspirin reduces the risk of developing colorectal cancer expressing the COX-2 enzyme (COX-2), even though the mechanism responsible for this antitumoral effect has not yet been clarified. Some observational studies suggest that Aspirin may reduce the risk of colorectal cancer, and randomised clinical trials show that selective COX-2 inhibitors reduce the risk of recurrent adenoma among patients with a history of adenoma or familial polyposis. A group of US researchers planned and conducted a large study so as to assess the relationship between the regular use of Aspirin and the risk of colorectal cancer expressing the COX-2 enzyme. The Authors utilised samples of colorectal tumour deriving from two big prospective trials. During the 2 446 431 person-years of follow up of 47 363 men and 82 911 women, 636 newly developed colorectal tumours were detected in which, by immuno-histochemical techniques, the expression of the COX-2 was identified. Among these tumours, 423 (67%) had a moderate or intense expression of the COX-2. The effects of Aspirin were significantly different with reference to the expression of this enzyme. The regular use of Aspirin was responsible for a reduction of the risk of colorectal tumours showing an intense expression of the COX-2 (multivariate relative risk: 0.64; 95% confidence interval (CI) between 0.52 and 0.78), but had no effect on the development of tumours with a scanty or absent expression of this enzyme (multivariate relative risk: 0.96; 95% CI 0.73–1.26).

The age-standardised incidence rate for tumours highly expressing the COX-2 in patients regularly using Aspirin was 37 for 100 000 person-years, while it was 56 for people not regularly using it. For tumours without the expression of the COX-2, the standardised incidence rate in the patients regularly using Aspirin was 27 for 100 000 person-years, and 28 in the others. The Authors conclude that Aspirin reduces the risk of colorectal tumours expressing the COX-2 enzyme, but does not have any effect on tumours not expressing such an enzyme.

Reference

THE ASSOCIATION OF BECLOMETHASONE AND ALBUTEROL AS NEEDED IN MILD ASTHMA IS AS EFFECTIVE AS THE REGULAR USE OF INHALED BECLOMETHASONE

In patients with mild asthma, the assumption, driven by symptoms, of 250 µg of beclomethasone and 100 µg of albuterol in a single inhaler has the same effectiveness as the regular therapy with beclomethasone 250 µg twice a day, and requires a reduced six-month dose of inhaled corticosteroids. A group of Italian researchers conducted a multicentre, randomised, controlled, double-blind trial to assess if the use of a therapy as needed with beclomethasone dipropionate and albuterol (salbutamol) in association in the same inhaler would be as effective as the regular therapy of inhaled beclomethasone in mild persistent asthma. The patients were randomised to one of the four inhaled treatments constituted by: placebo twice a day plus 250 µg of beclomethasone and 100 µg of salbutamol in a single inhalation as needed (combined therapy as needed – group 1);
placebo twice a day plus 100 µg of salbutamol as needed (salbutamol as needed – group 2); 250 µg of beclomethasone twice a day and 100 µg of salbutamol as needed (regular therapy with beclomethasone – group 3); 250 µg of beclomethasone and 100 µg of salbutamol in a single inhalation twice a day plus 100 µg of salbutamol as needed (regular combined therapy – group 4).

Among the 455 patients with mild asthma and a forced expiratory volume in 1 s of 2.96 l, the peak expiratory flow rate of the morning, recorded during the last two weeks of the six months of therapy, was higher \( p=0.04 \) and the number of recurrences in the course of the six months of treatment was lower \( p=0.002 \) in the subjects who had assumed the combined therapy as needed (group 1) compared to those who had assumed salbutamol as needed (group 2). The values were not significantly different from those observed in the groups of patients receiving regular therapy with beclomethasone (group 3) or regular combined therapy (group 4).

The total dose of inhaled corticosteroids in the patients treated with the combined therapy as needed was lower than that of the groups receiving regular therapy with beclomethasone or with regular combined therapy \( p<0.001 \).

Reference


EFFECTS OF CARDIAC RESYNCHRONISATION IN PATIENTS WITH LEFT VENTRICULAR SYSTOLIC DYSFUNCTION

Cardiac resynchronisation therapy associated with optimal pharmacological treatment reduces mortality and morbidity in patients with left ventricular dysfunction, increase in QRS length and III–IV NYHA class.

Canadian researchers evaluated a number of electronic databases, of biomedical journals and of reports of the Food and Drug Administration, so as to identify the best evidence regarding the efficacy, effectiveness and safety of cardiac resynchronisation by means of biventricular pacemaker implanted in patients with left ventricular dysfunction. Fourteen randomised trials (4420 patients) for the assessment of the efficacy of cardiac resynchronisation, 106 studies (9209 patients) for the evaluation of its effectiveness and 89 studies (9677 patients) for the analysis of its safety were considered. The patients analysed had an ejection fraction ranging between 21% and 30% and a QRS length ranging between 155 and 209 ms; 91% of the patients were in NYHA class III or IV despite optimal pharmacological treatment.

Cardiac resynchronisation therapy (CRT) improved the quality of life (mean weighted reduction evaluated through the Minnesota Living With Heart Failure questionnaire: 8 points, 95% confidence interval between 5.6 and 10.4 points), ejection fraction (mean weighted difference 3%, 95% CI between 0.9% and 5.1%) and functional status (improvement of at least one NYHA class observed in 59% patients having undergone biventricular pacemaker implantation). CRT associated with optimal pharmacological therapy also reduced the hospitalisation rate, by 37% (7–57%), and the overall mortality, by 22% (9–33%).

Reference


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