CAN ASPIRIN PREVENT COLON CANCER ?

(Giardiello FM, Hamilton SR, Knishi AJ, *et al.* Treatment of colonic and rectal adenomas with sulindac in familial adenomatous polyposis. *N Engl J Med* 1993; 328 : 1313-5.)

SUMMARY

Objective : To determine if administration of the non-steroidal anti-inflammatory drug (NSAID), sulindac causes regression of polyps in familial adenomatous polyposis.

Study design : Randomized, double blind, placebo controlled trial.

Patient : 22 patients with familial adenomatous polyposis including 4 who had undergone subtotal colectomy.

Intervention : patients were randomized into the sulindac group (n=11) and control group (n=11). The patients received sulindac in a dose of 150 mg twice daily for 9 months. Patients on control group received identical looking placebo tablets.

Main outcome measures : number and size of polyps were recorded in a measured area by periodic fiberoptic sigmoidoscopy.

Main results : Patients on sulindac had a statistically significant decrease in the number of polyps and their mean diameter as compared with those given placebo. When treatment was stopped at 9 months, the number of polyps had decreased to 44% of the baseline values ($p=0.014$) and diameter of the polyps to 34% of the baseline values ($p=0.001$). No patient had complete resolution of polyps. Three months after therapy was stopped, both the number and size of polyps increased in sulindac treated patients but remained significantly lower than the values at baseline. No side effect from sulindac were noted.

Conclusions : Sulindac reduces the size and number of colorectal adenomas in patients with familial adenomatous polyposis but its effect is incomplete and it is unlikely to replace colectomy as primary therapy.

Comments

Several chemopreventive agents for carcinoma colon have been identified namely selenium folate, vitamin C & E, calcium, low fat high fibre diet, urodeoxycholic acid but NSAIDs have generated the most excitement. Three large epidemiological studies have demonstrated that individuals taking aspirin regularly are at significantly (up to 50%) decreased risk of dying from colon cancer [1]. Familial adenomatous polyposis (FAP), where risk of developing colon cancer is almost 100% will be ideal candidates to test if NSAIDs can prevent large bowel cancer. This study and few others [2] indicate that this hypothesis may be correct [1]. However, complete resolution of polyps has not been reported.

Should we treat all patients of familial adenomatous polyposis with sulindac? The answer at present is no. Since there is only an incomplete regression of polyps the risk of colorectal carcinoma is not eliminated. There is also an increase in size and number of polyps on discontinuation of sulindac therapy [2], consequently sulindac is unlikely to replace colectomy as the mainstay of therapy. Moreover, results appear to be less dramatic in sporadic polyp "chemo-regression" trials [3]. There is a definite need to study the role of NSAIDs in preventing recurrence after polypectomy in sporadic adenomas and as primary prophylaxis in relatives of FAP who have the FAP gene but have not yet developed polyps.

REFERENCES

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3. Hixon LJ, Earnest DL, Fennerty MD, Sampliner RE. NSAID effect on sporadic colon polyps. *Am J Gastroenterol* 1993; 88 : 1652-6.

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