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Efficacy of ecabet sodium enema on steroid resistant or steroid dependent ulcerative colitis

Ecabet sodium (ES), a 12-sulfodehydroabietic acid monosodium salt derived from an ingredient in pine resin, has been shown to topically enhance several gastric mucosal defensive factors.¹ ES is widely used for the treatment of gastritis and gastric ulcer in Japan. A recent open label study demonstrated that ES also has therapeutic effects in active ulcerative colitis (UC).² In that study, the authors demonstrated that six of seven UC patients with proctosigmoiditis achieved complete remission by treatment with ES enema. However, successive clinical trials of the efficacy of ES enema in UC patients have not been reported. Here we demonstrate the efficacy of ES enema in steroid resistant or steroid dependent UC patients.

Treatment with ES enema was performed after obtaining informed consent from steroid dependant, steroid resistant, or steroid contraindicated UC patients who had inflamed lesions mainly in the rectum and sigmoid colon except for one patient with ileal pouchitis after total proctocolectomy. This clinical trial was approved by the ethics committee of Akita University School of Medicine. Patient profiles are shown in table 1. ES enema was prepared with 1 g of ES and 20–50 ml of tepid water, and one or two enemas per day were instilled into the rectum. Disease activity was assessed before and after treatment using the ulcerative colitis-disease activity index (UC-DAI).³ In case No 1, the endoscopic point was not included in the score. Doses of drugs for UC, including sulfasalazine, 5-aminosalicylic acid, and prednisolone were not changed or increased during treatment with ES enema.

One patient (case No 6) was withdrawn because of a sense of abdominal fullness. Two of five patients (case Nos 1 and 2) significantly responded to the treatment and achieved almost clinical remission in three and seven weeks, respectively. Endoscopic findings in the rectum of case No 2 before and after treatment are shown in fig 1A and 1B. One patient with pouchitis (case No 4) dramatically responded to treatment after two weeks. Two patients (case Nos 3 and 5) with deep ulcers in the rectum and sigmoid colon also responded to the treatment but did not achieve clinical remission. Endoscopic findings of case No 3 before and after the treatment are shown in fig 1C and 1D. Mean disease activity index declined by 54.5% after ES enema treatment compared with that before treatment ($p = 0.0289$).

Our results suggest that ES enema may have therapeutic actions in some steroid resistant or steroid dependent UC patients. ES enema also had therapeutic effects in the patient with ileal pouchitis. However, the effect of ES enema in two cases with deep ulcer was slight and clinical remission was

Table 1 Patients profiles

Case	Sex	Age (y)	Extent of lesions	Clinical course	Intractability
1	F	45	Left sided colitis	Relapsing remitting	PS dependent
2	M	44	Left sided colitis	Relapsing remitting	Irritation to PS
3	F	41	Left sided colitis	Chronic continuous	PS resistant
4	F	33	Pouchitis	Relapsing remitting (post colectomy)	PS induced bone necrosis
5	M	23	Left sided colitis	Relapsing remitting	PS resistant
6	F	32	Left sided colitis	Relapsing remitting	PS resistant

PS, prednisolone.

not achieved. The detailed functional mechanism of ES enema for improvement in inflammation in colonic mucosa was not clearly elucidated but induction of several defensive factors and an antioxidative stress function⁴ are suggested as being involved. Further randomised case controlled trials with larger number are needed to assess the efficacy of ES enema in patients with UC.

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Figure 1 Endoscopic findings of the rectum in case Nos 2 case 3 before and after treatment with ecabet sodium (ES) enema. (A) Case No 2, before treatment; whitish coated shallow erosions are seen diffusely. (B) Case No 2, after treatment; lesions have improved dramatically. (C) Case No 3, before treatment; deep ulcers can be seen diffusely. (D) Case No 3, after treatment; deep ulcers are partially improved.