

## Effect of Actinon, an Extract of Edible Mushrooms, in Comprehensive Treatment for Advanced Digestive Cancer

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The comprehensive treatment commonly used for management of advanced cancer affects the quality of life because of the side effects of chemotherapy and cachexia. Actinon, an aqueous extract of edible mushrooms, demonstrated good anticancer and antimetastatic activities in our experimental studies. Clinical observation on the effect of Actinon on enhancement of efficacy and reduction of side effects in comprehensive treatment of advanced digestive cancer was performed from July 2000 to March 2001. Eighteen cases were treated with Actinon only (EEM group, 11 cases) or with chemotherapy (EEM+CT group, 7 cases), and 15 cases with Provera (MPA group, 10 cases and MPA+CT group, 5 cases), the latter which served as controls.

Thirty-three patients with pathologically confirmed advanced digestive cancer who had not received previous treatment were used. The liver, kidney function, and hemogram were normal, and their Karnofsky score was  $\geq 60$ . Of the patients, 18 were male and 15 female; their ages ranged from 35 to 72 years; there were 8 cases of carcinoma of cardia, 13 of stomach cancer, 5 of colorectal cancer, and 3 of liver cancer.

EEM group administered EEM tablets orally at a dose of 2 tablets each, 3 times a day (415 mg/tablet, supplied by Tokyo Institute of Applied Medicine, Inc., Japan). The MPA group was administered MPA tablets orally, 2 capsules each, 3

times a day (100 mg/capsule, manufactured by Tonghua Pharmacy, China). Two cycles were repeated every 4 weeks at least. The chemotherapeutic drugs included cisplatin (DDP), 100 mg/dl; 5-fluorouracil (5-Fu), 1000 mg/dl for 5 days for esophageal cancer and adriamycin (ADM) 60 mg/dl, 5-fluorouracil (5-Fu) 1000 mg/dl for 5 days and mitomycin C (MMC), 8 mg/dl for stomach, liver, and colorectal cancer.

Overall response rate and benefit rate in EEM group were higher than in MPA group (as shown).

Group	No.	CR	PR	SD	PD	RR (%)	Benefit (%)
EEM + CT	7	1	2	2	2	42.9	71.4
MPA + CT	5	0	1	2	2	20.0	60.0
EEM	11	0	1	5	5	10.0	54.5
MPA	10	0	0	3	7	0	30.0

Karnofsky scores in the EEM group were more enhanced than in the MPA group; an increase of body weight and stabilization of peripheral blood and immune function were found in the EEM group.

This result indicated that EEM could increase the response rate of chemotherapy, alleviate the toxic and side effects of chemotherapy, increase immune responses, and improve the quality of life. Actinon is therefore useful in comprehensive treatment for advanced cancer.