



International Journal of Gynecological Cancer

Volume 14, Issue 4, pages 589–594, July 2004

Article first published online: 3 AUG 2004

DOI: 10.1111/j.1048-891X.2004.14403.x

Natural killer cell activity and quality of life were improved by consumption of a mushroom extract, *Agaricus blazei Murill* Kyowa, in gynecological cancer patients undergoing chemotherapy

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Abstract.

A mushroom extract, *Agaricus blazei Murill* Kyowa (ABMK), has been reported to possess antimutagenic and antitumor effects. Here, we investigate the beneficial effects of ABMK consumption on immunological status and qualities of life in cancer patients undergoing chemotherapy. One hundred cervical, ovarian, and endometrial cancer patients were treated either with carboplatin (300 mg /m²) plus VP16 (etoposide, 100 mg /m²) or with carboplatin (300 mg /m²) plus taxol (175 mg /m²) every 3 weeks for at least three cycles with or without oral consumption of ABMK. We observed that natural killer cell activity was significantly higher in ABMK-treated group (ANOVA, $n = 39$, $P < 0.002$) as compared with nontreated placebo group ($n = 61$). However, no significant difference in lymphokine-activated killer and monocyte activities was observed in a manner similar to the count of specific immune cell populations between ABMK-treated and nontreated groups. However, chemotherapy-associated side effects such as appetite, alopecia, emotional stability, and general weakness were all improved by ABMK treatment. Taken together, this suggests that ABMK treatment might be beneficial for gynecological cancer patients undergoing chemotherapy.