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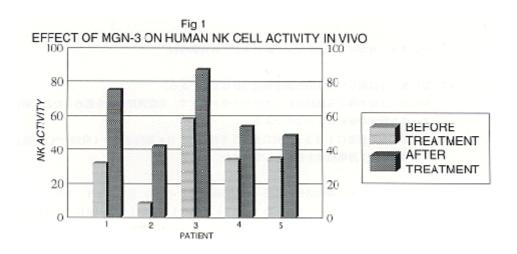
## Immunomodulatory and Anti-Cancer Properties of (MGN-3), a modified xylose from rice bran, in 5 Patients with Breast Cancer.

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MGN-3 is a new biological response modifier (BRM). It is an extract of arabinoxylan from rice bran that has been enzymatically modified to increase it's immunomodulatory function. Five patients with breast cancer were given MGN-3 at 3g/d, then NK cell activity was measured by 4-hr 51Cr-release assay using K562 tumor cells as targets.

Results showed that.

1 ) patients had low level of basal NK activity (13.5-34.9%) at effector: to target (E:T) ratios of I2 and I00:1,that was significantly enhanced by MGN-3 treatment (21.1-50.I%) at the same E:T ratios.(Fig1)



2) The augmentation in NK activity was detected as early as 1-2 weeks post treatment and was further increased with continuation of administering MGN-3.

3) Two patients who participated early in the study(6-8 mon.) are in complete remission.

We conclude the high augmentory effect of MGN-3 on NK cells and the absence of notable side effects make MGN-3 a promising BRM. In addition, immunotherapeutic effect of MGN-3 in conjunction with chemotherapy may be useful in treatment of cancer patients.

MGN-3. was offered by Daiwa Pharmaceutical co., Ltd. 1-16-19, Sangenjaya Setagaya, Tokyo, Japan.