

## **BRM (Biological Response Modifier) Used to Complement Standard Treatment may Improve QOL and Prolong Life**

### **“Immunomodulatory therapy for different types of advanced cancer using rice bran arabinoxylan derivative”**

#### **From presentations at the 6th meeting of the Japanese Society for Complementary and Alternative Medicine**

The 6th meeting of the Japanese Society of Complementary and Alternative Medicine was held in Sendai City on the 25th and 26th of October, 2004, and had the theme “Food and Health: the Interface between Agriculture and Medicine.” Nearly 50 speeches and presentations were given. Among these, one speech which attracted attention was “Immunomodulatory therapy for different types of advanced cancer using rice bran arabinoxylan derivative,” which focused on the role of this substance as a BRM (biological response modifier). It reported on a study that followed up patients at stage IV taking rice bran arabinoxylan derivative (“BioBran”; brand name “Lentin Plus 1000”), and suggested a possible improvement in QOL, and prolonged life. Here, Hiroshi Tsunekawa of Tsunekawa Gastrointestinal Clinic explains the results of the study.



#### **Dr. Hiroshi Tsunekawa:**

Graduated from Showa University School of Medicine in 1973. Worked at the Gastrointestinal Department of National Nagoya Hospital, and served as the director of the Gastrointestinal Department at Meitetsu Hospital.

Has been the deputy director of Tsunekawa Gastrointestinal Clinic (Nagoya City) since 1990. Since establishing the Tokai Holistic Medical Association in 1991, he has promoted network medicine through interactions with patients, families, and healthcare professionals. He has written many books, including “A guide to modern daily care,” (Shinipponhoki Publishing, Co., Ltd.), and “A book to read if you have doubts about cancer treatment” (Life Kikaku).

## Effect of increased immunity on cancer verified using NK cell activity and tumour markers

### **First of all, could you tell me about the background to this study?**

Tsunekawa: The purpose of the study was to verify the effect on cancer patients of “immunomodulatory therapy” based on the “Ryoyo” concept used at my clinic. I believe that enhancing the healing capacity and immunity of patients through food and “daily care,” both physical and mental, has a therapeutic effect on cancer patients. However, the approach of western medicine is mainly based on eliminating cancer cells, and the concept of using BRM to enhance and recover immunity is not as common. I felt that the therapeutic effect could be enhanced by using functional foods, including “BioBran,” as part of immunomodulatory therapy.

### **Why did this study focus on patients at stage IV?**

Tsunekawa: 70-80% of patients at my clinic are unresponsive to standard treatments such as anticancer drugs, radiation therapy, and surgery, because of recurrence or metastasis, or have been told that their disease is incurable. For these reasons, the study included 20 patients at stage IV and 5 at stage III (see Table 1).

**Table1 Primary cancer in 25 patients**

<b>Colon cancer</b>	<b>7</b>	<b>Stomach cancer</b>	<b>1</b>
<b>Breast cancer</b>	<b>4</b>	<b>Bile duct cancer</b>	<b>1</b>
<b>Lung cancer</b>	<b>3</b>	<b>Thyroid cancer</b>	<b>1</b>
<b>Renal cancer</b>	<b>2</b>	<b>Uterine cancer</b>	<b>1</b>
<b>Malignant lymphoma</b>	<b>2</b>	<b>Prostate cancer</b>	<b>1</b>
<b>Ovarian cancer</b>	<b>2</b>		

### **Can you explain the method used for immunomodulatory therapy in practical terms?**

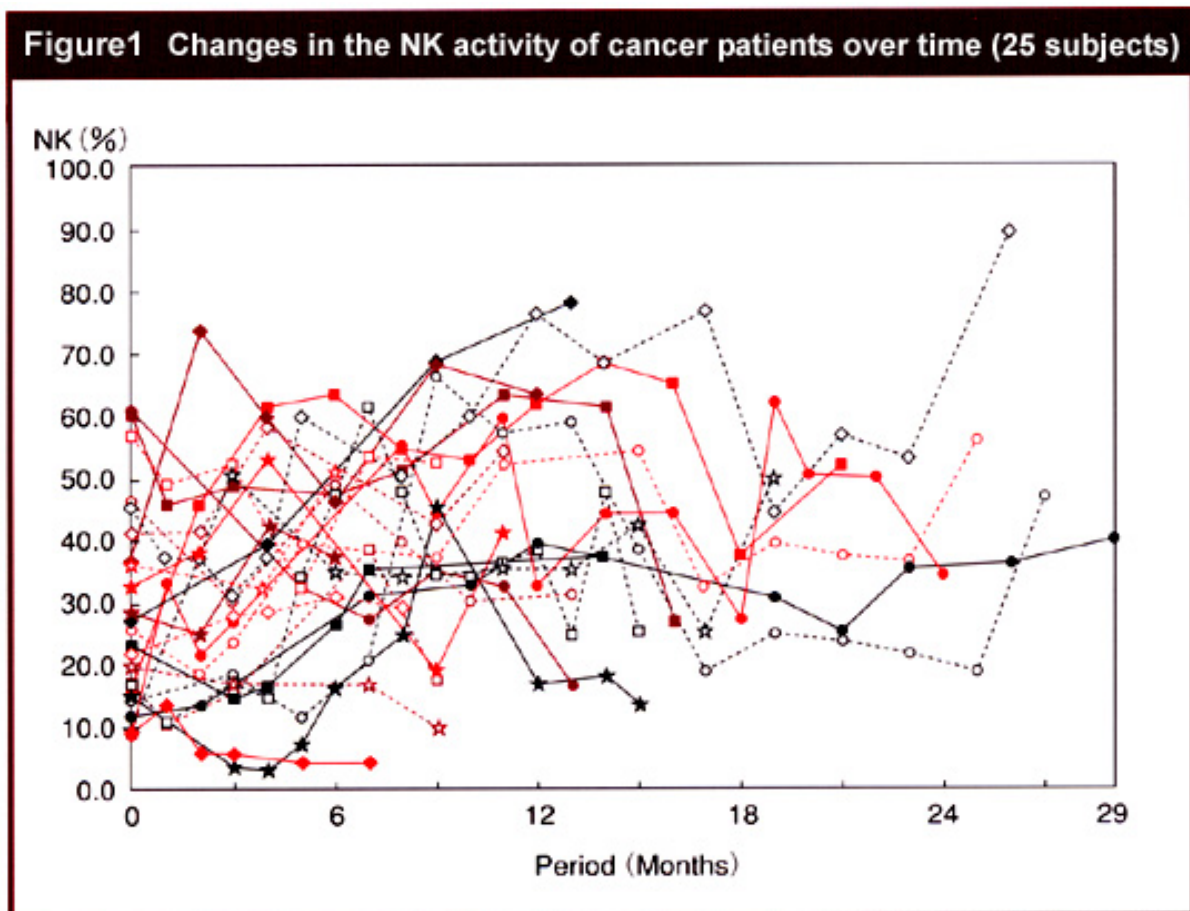
Tsunekawa: I used Chinese medicine, an infusion of a large dose of vitamin C (20-30 g/day), and a subcutaneous injection of Maruyama vaccine in some patients to enhance their healing capacity and immunity. “BioBran” was also used at 3 g/day. Their NK cell activity was

measured as an immunity index and their tumour markers were measured as an indicator of cancer activity.

Immunity increased in 85% of patients at stage IV, and tumour markers decreased in 65%.

### What were the results of the study?

Tsunekawa: Increased NK cell activity was observed in 22 of 25 patients followed up for at least 6 months (88%) and in 17 of the 20 patients at stage IV (Figure 1).



### How should we interpret the level of activity of NK cells?

Tsunekawa: NK cell activity varies between individuals. The standard level is generally 30-40%. Many subjects had decreased activity levels because of anticancer drugs and radiation therapy, but changes over time are likely to be due to changes in immunity.

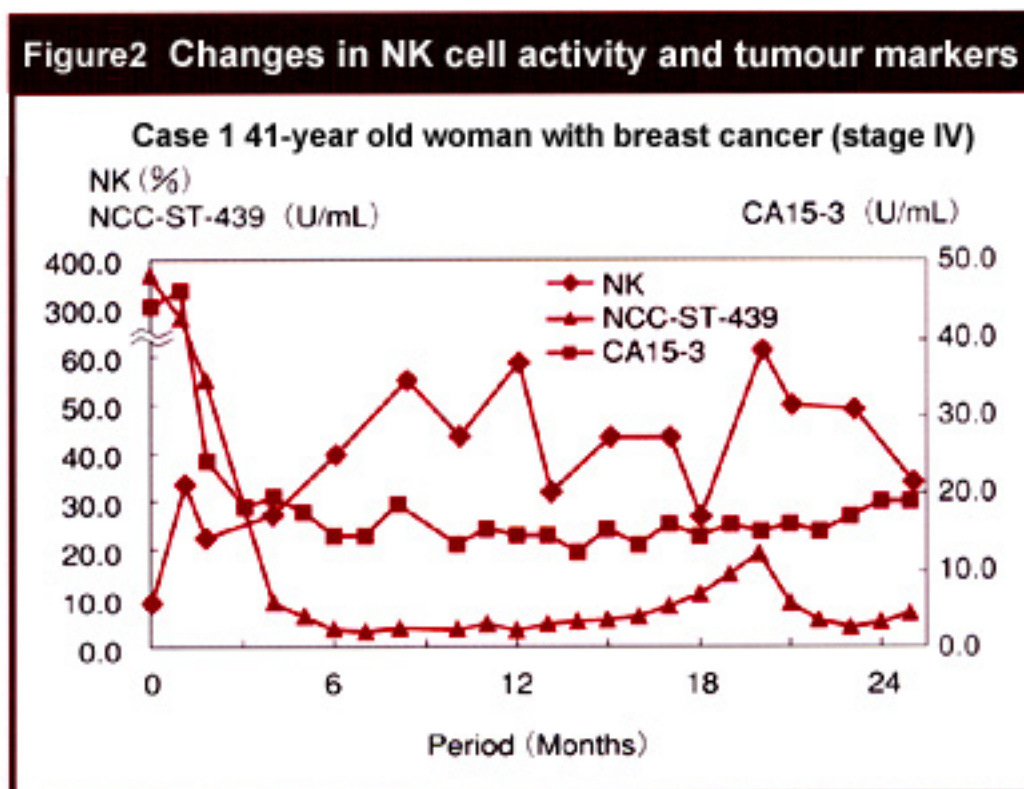
### What were the results for tumour markers?

Tsunekawa: Decreased tumour marker levels were observed in 13 of 20 patients (65%). The tumour marker level was inversely related to the NK cell activity in many cases, in other words, the tumour marker level tended to decrease when the immunity increased. The important point is that the lives of the patients were prolonged, and symptoms such as pain improved, as did QOL.

This was shown by the fact that it was possible to follow up many stage IV patients for a long time, basically on an outpatient basis. I think it is significant that “BioBran” not only decreased the figures and prolonged life but also improved and maintained QOL.

### Were there any patients who had a complete response?

Tsunekawa: There is the example of a 41-year-old woman with recurrent breast cancer at stage IV who had bone metastases over her whole body. She has been visiting our clinic since July 2001, and her tumour markers and NK cell activity were measured over time (Figure 2). At the first visit, her NK activity was at a low level, 9.3%, and the two tumour markers were very high.



I gave her instruction in “daily care” and prescribed “BioBran,” vitamin C, and Chinese medicine. Her NK cell activity increased to 33.7% in a month and her tumour markers

declined rapidly. After two months, her tumour markers normalised, and have remained normal since then. Subjective symptoms such as pain due to bone metastasis disappeared at 7 months, and anticancer drugs were withdrawn at 13 months. She has still no symptoms at 28 months and has never been admitted to hospital.

The possibility of a dormancy therapy for suppressing the activity of cancer cells

**Has increasing immunity made it possible for the patient's cells to coexist with the cancer?**

Tsunekawa: From my clinical experience, I believe that the activity of cancer cells have been suppressed or halted, and that it is possible to make cancer cells dormant by enhancing immunity using standard treatments combined with BioBran, as appropriate for the type and stage of the cancer in individual patients.

**What do you think the role of “BioBran” is in immunomodulatory therapy?**

Tsunekawa: I think that if used in combination with standard treatments, it complements their effects. From what I have observed, “BioBran” reduces the adverse reaction to anticancer drugs, making treatment with anticancer drugs possible without decreasing immunity. The important point is that it makes it easier to carry out the standard treatment properly.

**What do you think about the future possibilities of “BioBran” from the results of this study?**

Tsunekawa: The crucial fact is that “BioBran” increased immunity and improved QOL in this study. I myself was surprised by the result showing improvements in length and quality of life. I hope that its action mechanism can be clarified, to define its position as a BRM.

**Thank you very much.**

Address inquiries and requests for information about “BioBran” to:

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