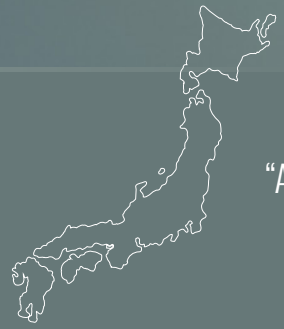
CYBER CELL X®

AFTV

AUTOLOGOUS CANCER VACCINE THERAPY



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"AFTV Autologous Cancer Vaccine Therapy" is based on solid scientific evidence and originates from RIKEN, a national research and development agency, as well as from the University of Tsukuba.

CYBER CELL X

AFTV

AUTOLOGOUS CANCER VACCINE THERAPY

TABLE OF CONTENTS

TADAO OHNO

Former Director of the RIKEN Tsukuba Cancer Research Center, Honorary Lifetime Member of the American Cancer Society, President and CEO of Cell-Medicine, Inc.

EDUCATION / CAREER BACKGROUND

- 1966: Graduated from the Faculty of Pharmaceutical Sciences, University of Tokyo
- 1971: PhD in Pharmaceutical Sciences, Institute of Pharmaceutical Sciences, University of Tokyo
- 1971–1973: Research Associate, University of Pennsylvania School of Medicine
- 1973–1975: Temporary Staff, Kitasato Institute
- 1975–1985: Researcher, National Institute of Radiological Sciences, Science and Technology Agency
- March 1985–03: Director, RIKEN Gene Bank (Cell Development Bank)
- 1999–2002: Visiting Professor, Hepatobiliary Surgery, First Affiliated Hospital, Zhongshan Medical University, Guangzhou, Guangdong, China
- July 2001–Present: Founder, Chairman of the Board and CEO, Riken Venture Cell Medicine Co., Ltd.
- March 2003–March 2013: Visiting Professor, Department of Advanced Materials Science, Faculty of Science and Engineering, Waseda University
- April 2005–March 2019: Visiting Professor, Oral Surgery, Faculty of Dentistry, Nippon Dental University
- September 2010–Present: Researcher, Department of Internal Medicine (2), Fukui University

EVALUATION BASED ON CASE REPORTS

As of the end of November 2024, follow-up has been conducted on

3.790 different cancer cases, and their clinical course has been determined.

1.663 cases have been evaluated according to soft criteria, and treatment outcomes have been summarized graphically.

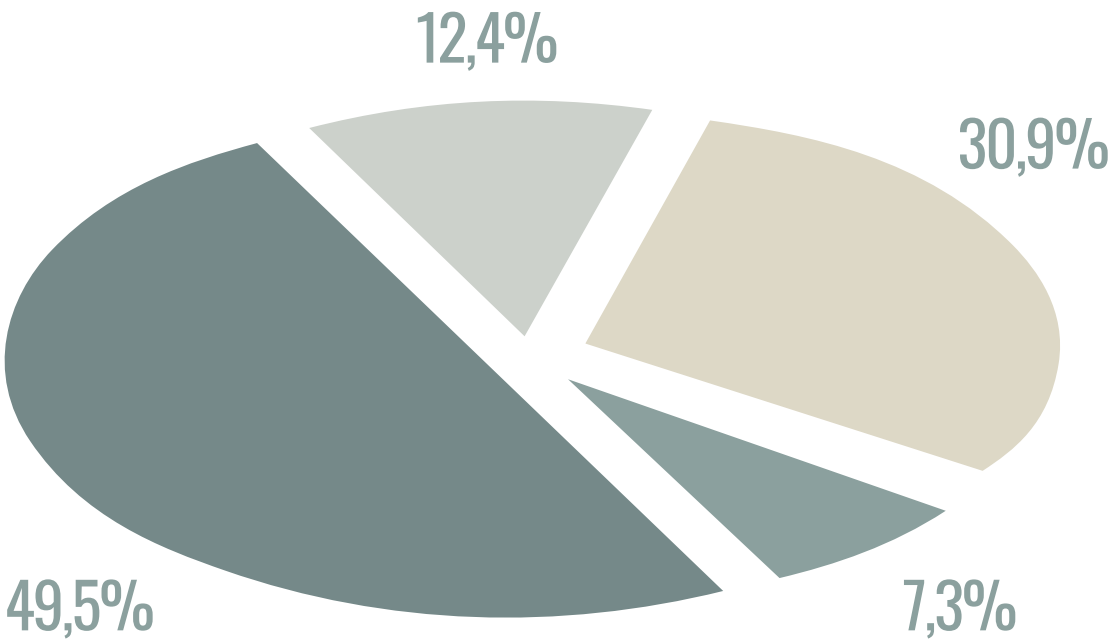
(Updated November 30, 2024)

in **%44** of the evaluated cases, a certain level of clinical improvement effect has been observed (effective cases + cases that remained stable for more than 1 year or where the disease did not progress).

Source: https://cell-medicine.com/cases/library.php

GRAPH BASED ON CASE REPORTS

Due to the high proportion of effective cases and those remaining stable for a long period (1 year or more), autologous cancer vaccine therapy is highly advantageous.



- Effective
- Long-term stable (1 year or more)
- Stable (6 months – 1 year)arası)
- Ineffective

Source: https://cell-medicine.com/cases/

TREATMENT RESULTS TABLE FOR ALL CANCER TYPES

Cancer type	breast	brain	colon	lung	liver	abdomen	ovary	pancreas	kidney	bile duct / gallbladder	cervix / cervix uteri
Total number of cases	471	824	562	201	215	233	184	148	89	112	78
1: Effective (Note 1)	61	46	26	9	16	12	14	6	6	6	4
2: Long-term stable / no progression (≥1 year)	124	78	60	34	45		26	14	10	8	5
3: Unchanged (Note 2)	21	26	12	11	10	5	3	3	0	1	3
4: Ineffective	66	161	141	41	40	65	44	35	16	38	27
Improvement rate 1 (Note 3)	68%	39,90%	36,00%	45,30%	55%	36,40%	46,00%	34,50%	50,00%	26,40%	23,10%
5: Under observation (Note 4)	10	35	8	4	2	2	6	3	5	2	2
6: Treatment discontinued (Note 5)	13	13	29	6	3	10	8	10	2	7	3
7: Outcome unknown, not followed	163	446	263	87	97	99	76	68	48	45	31
Improvement rate 2 (Note 6) 7. Cases with unknown outcomes are considered ineffective.	42,50%	16,40%	17,10%	23,60%	29,30%	19,10%	24,50%	15,90%	20,00%	14,30%	12,90%
8: Not applied (Note 7)	13	19	23	9	2	12	7	9	2	5	3
9: Not yet evaluated	0	0	0	0	0	0	0	0	0	0	0

Among 3,790 different cancer cases treated with autologous cancer vaccine therapy and followed up until the end of November 2024, cases with reported clinical courses have been evaluated according to soft criteria, and the treatment outcomes are summarized below.

Cancer type	uterine body	skin cancer	soft tissue sarcoma	esophagus	multiple cancers	thyroid	oral cavity	Osteosarkom	Farenks	Pharynx	Bladder
Total number of cases	88	39	76	43	38	20	50	32	20	22	30
1: Effective (Note 1)	4	0	2	3	3	3	3	1	1	0	3
2: Long-term stable / no progression (≥1 year)	11	3	3	3	8	3	5	4	1	1	3
3: Unchanged (Note 2)	1	5	0	1	0	2	0	0	1	0	0
4: Ineffective	18	9	24	11	9	7	9	7	2	5	5
Improvement rate 1 (Note 3)	44,10%	17,60%	17,20%	33,30%	55,00%	40,00%	47,10%	41,70%	40,00%	16,70%	54,50%
5: Under observation (Note 4)	3	0	1	0	1	0	1	3	0	0	0
6: Treatment discontinued (Note 5)	5	2	1	3	2	1	4	0	4	0	2
7: Outcome unknown, not followed	42	18	43	20	15	4	24	16	11	13	16
Improvement rate 2 (Note 6) 7. Cases with unknown outcomes are considered ineffective.	19,70%	8,60%	6,90%	15,80%	34,40%	31,60%	19,50%	17,90%	12,50%	5,30%	22,20%
8: Not applied (Note 7)	4	2	2	2	0	0	4	1	0	3	1
9: Not yet evaluated	0	0	0	0	0	0	0	0	0	0	0

TREATMENT RESULTS TABLE FOR ALL CANCER TYPES

Cancer type	prostate	small intestine	meninges	parotid gland	nuclear power plant is unknown	male breast	peritoneum	mesothelioma	diğerleri	fallopian tubes	sinuses
Total number of cases	17	14	4	13	11	39	18	9	29	10	3
1: Effective (Note 1)	1	0	0	1	2	1	2	1	0	1	0
2: Long-term stable / no progression (≥1 year)	5	1	1	0	1	1	0	1	2	0	0
3: Unchanged (Note 2)	2	0	0	1	1	0	0	0	0	0	0
4: Ineffective	3	3	1	4	2	7	5	1	4	3	1
Improvement rate 1 (Note 3)	54,50%	25,00%	50,00%	16,70%	50,00%	22,20%	28,60%	66,70%	33,30%	25,00%	0.0%
5: Under observation (Note 4)	0	0	0	1	0	0	0	0	2	0	0
6: Treatment discontinued (Note 5)	1	0	0	0	0	2	0	1	1	0	1
7: Outcome unknown, not followed	5	8	2	6	4	25	8	5	17	5	1
Improvement rate 2 (Note 6) 7. Cases with unknown outcomes are considered ineffective.	37,50%	8,30%	25,00%	8,30%	30,00%	5,90%	13,30%	25,00%	8,70%	11,10%	0.0%
8: Not applied (Note 7)	0	2	0	0	1	3	3	0	3	1	0
9: Not yet evaluated	0	0	0	0	0	0	0	0	0	0	0

Among the evaluated cases, in the group defined as “improvement rate 1” (44.0%), a certain level of clinical improvement effect has been observed (effective cases + cases that remained stable for 1 year or longer or where the disease did not progress). Soft criteria differ from strict academic evaluation criteria, but are used as a reference for assessment.

Source: https://cell-medicine.com/cases/library.php

Cancer type	Testicles	Neuroblastoma	Larynx	Lymphoma	salivary glands	thymus gland	vulva	penis	unclassified	total number of cases
Total number of cases	3	4	5	10	7	10	1	1	7	**3790**
1: Effective (Note 1)	0	0	1	0	0	0	0	0	0	**239**
2: Long-term stable / no progression (≥1 year)	0	0	0	2	0	2	0	0	0	**493**
3: Unchanged (Note 2)	0	0	0	0	0	0	0	0	0	**109**
4: Ineffective	2	0	1	1	1	3	0	0	0	**822**
Improvement rate 1 (Note 3)	0.0%	0.0%	50,00%	66,70%	0.0%	40,00%	0.0%	0.0%	0.0%	**44,00%**
5: Under observation (Note 4)	0	0	0	1	0	0	0	0	0	**92**
6: Treatment discontinued (Note 5)	0	0	0	0	0	0	1	0	0	**135**
7: Outcome unknown, not followed	1	4	3	5	5	5	0	1	1	**1756**
Improvement rate 2 (Note 6) 7. Cases with unknown outcomes are considered ineffective.	0.0%	0.0%	20,00%	25,00%	0.0%	20,00%	0.0%	0.0%	0.0%	**21,40%**
8: Not applied (Note 7)	0	0	0	1	1	0	0	0	6	**144**
9: Not yet evaluated	0	0	0	0	0	0	0	0	0	**0**

TABLE EVALUATION NOTES

- **(Note 1)** “Effective” refers to cases where at least one measurable indicator of improvement is observed, such as a reduction in remaining tumor size, a decrease in tumor markers, a life expectancy extended to more than twice the estimated duration, or a clear improvement in quality of life (KPS evaluation). It represents the number of cases clinically assessed as having a positive outcome.
- **(Note 2)** “Stable” (6 months or longer, 1 year or more) conditions are generally evaluated positively; however, considering clinicalpractice perspectives, these are regarded as not yet sufficiently effective and are evaluated negatively.
- **(Note 3)** Improvement rate 1 = (1. effective + 2. long-term stable / no progression) / (1. effective + 2. long-term stable / no progression + 3. stable (6 months–1 year) + 4. ineffective cases)
- **(Note 4)** “Under observation” refers to cases where the follow-up period after treatment is still too short to evaluate effectiveness.
- **(Note 5)** “Treatment discontinued” refers to the number of cases where treatment was stopped due to death or other reasons after starting autologous cancer vaccine therapy.
- **(Note 6)** Assuming that all cases with unknown outcomes / not followed are ineffective: Improvement rate 2 = (1. effective + 2. long-term stable / no progression) / (1. effective + 2. long-term stable / no progression + 3. stable (6 months–1 year) + 4. ineffective cases + 7. outcome unknown / not followed)
- **(Note 7)** “Not applied” refers to the number of cases where treatment was not administered due to reasons such as death.
- **(Note 8)** “Not yet evaluated” refers to the number of cases that could have been evaluated but were not assessed due to various reasons.

CYBER CELL X®

AFTV AUTOLOGOUS CANCER VACCINE THERAPY

CASE REPORTS

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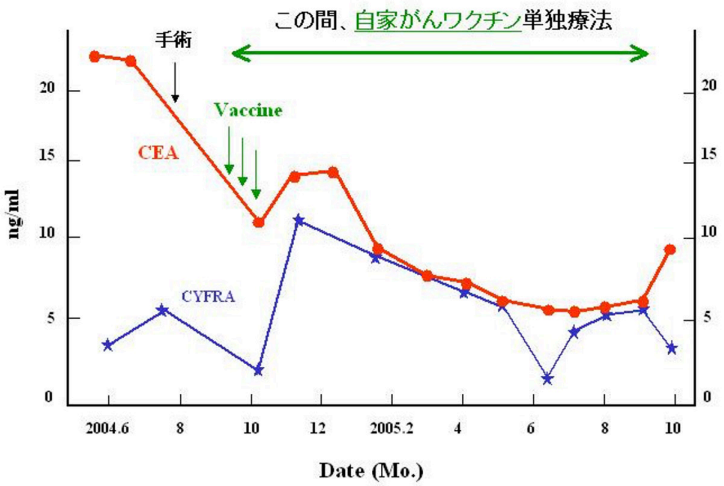
CASE REPORTS

LUNG CANCER

Before radiotherapy
“Consolidation effect”



[Case 0144]

Normally, when lung cancer metastasizes to lymph nodes, radiotherapy alone is not sufficient, and since the lymph nodes cannot be completely eliminated, there are many cases of recurrence; therefore, radiotherapy is often abandoned. However, in this case, the patient has survived for more than 10 years without abandoning treatment. Although fluid accumulation in the chest and lung cancer cells were observed in the pleura, it became possible to control tumor markers after starting vaccination.

In a case where palliative surgery was performed for adenocarcinoma accompanied by pleural effusion, tumor markers such as CEA and CYFRA temporarily worsened after the start of treatment (2004.09–10), which was interpreted as pseudoprogression, but then began to decrease and continued to remain low thereafter.

Since no other treatment was applied during this period, the decrease in tumor markers is considered to be clearly attributable to the autologous cancer vaccine.

One year later (2005.10), PET showed that lymph node metastasis had disappeared, and tumor markers had returned to normal (the rightmost point of the graph). Since the disappearance of lymph node metastasis indicates remission in lung cancer, if radiotherapy had been performed, it would be considered cured; however, as seen in this case, remission was achieved with the “consolidation effect” of the autologous cancer vaccine.

After 3 years, the patient’s quality of life (QOL) was problem-free, and as of October 2009, no increase in tumor markers has been observed.

(2011.11.02) At the rightmost point of the graph, lymph node metastasis was detected again; however, between that time and the 4-year interval, no tumor growth was observed and the condition remained in remission.

→Kuranishi Fumihito et al., 8th Cancer Vaccine Research Meeting, Tokyo, 19.11.2011

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/40

CASE REPORTS

LUNG CANCER

Brain metastases

It has been reported that the prognosis of lung cancer with brain metastasis is generally very short even with clinical treatment.

[Case 0086]

In lung cancer, adenocarcinoma is a type that is often definitively diagnosed. The primary tumor in this case was surgically removed as lung cancer. At the same time, metastasis was detected in the lymph nodes.

After surgery, although the tumor had metastasized to the brain, autologous cancer vaccine therapy was initiated, and the disease course was monitored. In this process, the brain metastasis disappeared. Accordingly, the radiotherapy initially planned for the brain metastasis was canceled, which surprised radiology specialists (generally, radiotherapy is the main treatment for brain metastases, and complete recovery with gamma knife radiotherapy alone is rare).

The patient continued to attend the hospital regularly and remained under follow-up. The immune response test was negative, after which autologous cancer vaccine therapy was administered (2 courses, 6 doses); however, the immune response test remained negative. (Note): In this case, no brain surgery was performed; only gamma knife radiotherapy was applied. During this time, autologous cancer vaccine therapy was also administered, and one year later, the number of brain metastases decreased from 8 to 3. This can be considered a clearly effective case.

In general, the prognosis for lung cancer patients with brain metastases is quite poor.

According to Dr. Matsumoto Kengo, Chief Physician of Okayama City Hospital and Professor of Brain Surgery at Okayama University Faculty of Medicine:
“If no treatment is applied after detection, the average survival is about 1–2 months. With only radiotherapy, it is about 3–4 months. Even when combined with brain surgery, radiotherapy, and chemotherapy, the average survival after surgery is only about 10 months.”

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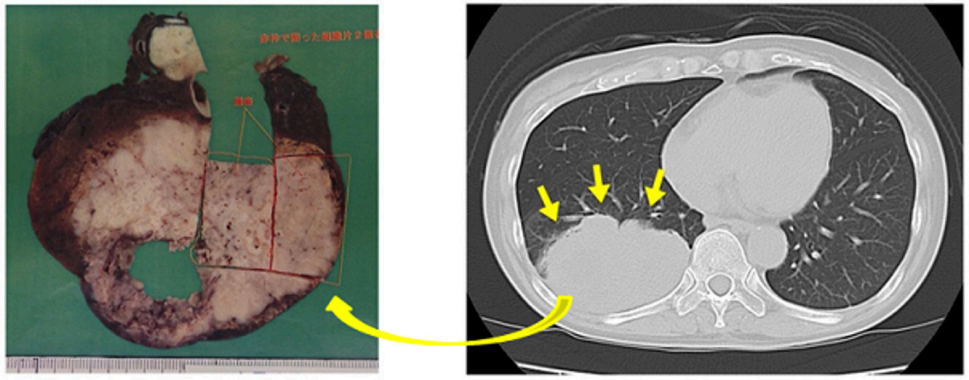
Source: https://cell-medicine.com/cases/40

CASE REPORTS

LUNG CANCER

Tumor Size Became Very Large, Despite Good Improvement



(CMI1574) 11×8.5cm, pT3N1M0 pStageIIIA

[Case 1549]

Before surgery, when lung cancer reaches such a large size, pleural effusion usually begins to accumulate and even if a high fever is present, surgery can still be performed under suitable conditions and autologous cancer vaccine therapy can be applied. In this way, it appears possible to achieve a long, high-quality recurrence-free period.

The case belongs to a woman in her 60s. She had a large lung tumor, about the size of a fist, considered to be in an advanced stage. Before surgery, there were severe clinical symptoms including bloody sputum, fever up to 39–40°C, fatigue, and significant deterioration in general condition.

Despite all these negative findings, surgical intervention was performed. After surgery, it was determined that the tumor had spread to surrounding tissues and metastasis to lymph nodes had occurred. Therefore, to support the process, the responsible physician administered autologous cancer vaccine therapy.

Approximately 3 years after surgery, in order to learn about the patient's current condition, the physician contacted the patient's daughter, who works in the healthcare sector, and received the response: "The disease has probably recurred and the patient is bedridden."

However, contrary to expectations, it was later reported that "there was nothing, the patient is in very good condition," and that "we believe the autologous cancer vaccine is effective." The fact that this information was provided by a healthcare professional further strengthens its reliability and clinical significance.

Over time, the patient's condition remained stable and no signs of recurrence were observed. Five years after surgery, the responsible physician evaluated the patient as having achieved "complete recovery." This case is noteworthy in demonstrating that even in advanced cases, combination therapies can yield long-term successful outcomes.

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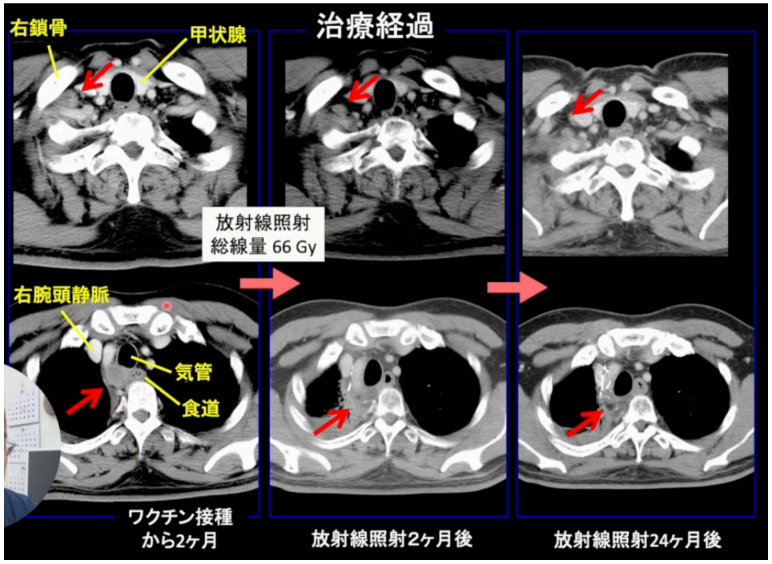
CASE REPORTS

LUNG CANCER

Diagnosis:
“Completely Treated”



[Case 0825]

After surgery with a diagnosis of lung adenocarcinoma Stage IIIA (T2N1M0), a CT scan performed in August 2007 revealed pleural invasion and new venous invasion. Lymph node metastasis was detected in 34 out of 37 nodes removed.

In October 2007, autologous cancer vaccine therapy was initiated. However, the tumor marker CA19-9 increased. Later, metastasis was detected in cervical lymph nodes, and low-dose radiotherapy (dormant therapy) was applied to this region.

In July 2012, maximum treatment was terminated (since cervical lymph node metastases generally reappear temporarily after radiotherapy), but in this case, complete remission was observed. As of October 2015, the patient has continued life without recurrence. The responsible physician’s evaluation is in the direction of “complete recovery.”

(Note): In this case, since metastasis was detected 2 months after the autologous cancer vaccine treatment, it was initially considered “ineffective.” The CA19-9 increase was also attributed to metastasis. However, since the metastases in the mediastinum and cervical lymph nodes later disappeared with radiotherapy and the autologous cancer vaccine, the effect of the vaccine has been re-evaluated as “effective.”

In previous clinical experiences, when only “radiotherapy + low-dose chemotherapy” was applied, multiple recurrences were generally observed in lymph nodes where metastasis had disappeared. However, in this case, it is considered an example of the “consolidation effect” of the autologous cancer vaccine, meaning that the obtained result is maintained over time.

In the current situation, the case is evaluated as “recovered.”

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Source: https://cell-medicine.com/cases/40

CASE REPORTS

LUNG CANCER

Given 2 Months to Live; Now Playing Golf Energetically

[Case 2507]

At the oncology hospital where the patient was followed, the responsible physician stated that the patient had “no more than 2 months to live.”

In December 2015, the patient was diagnosed with advanced-stage small cell lung cancer, and treatment with Opdivo (a type of immune checkpoint inhibitor—small cell lung cancer is the fastest progressing type among lung cancers, and clinical trials were ongoing at the time of approval), along with autologous cancer vaccine therapy and radiotherapy, was initiated.

Afterward, tumor markers returned to normal. By August 2016, the patient’s condition had improved to the point where they could play golf, showing a very good quality of life. The patient continues to use Opdivo, and this case continues to surprise the thoracic surgery department of the oncology hospital.

(Note): In this case, the striking effectiveness of the autologous cancer vaccine emerged thanks to its combination with radiotherapy observed directly in the oncology hospital.

It remains an ongoing example where life expectancy has extended beyond one year.

In general, small cell lung cancer progresses very rapidly and is considered the most aggressive among lung cancers; the average survival time is about 2–4 months. Therefore, it is considered appropriate for patients diagnosed with this type of cancer to be included in clinical trials.

ATTENTION:
In advanced lung cancer, prolonged use of strong chemotherapy may sometimes shorten life expectancy (Temel JS, Massachusetts General Hospital, 2010). To avoid excessive side effects, combining low-dose chemotherapy with autologous cancer vaccine therapy is recommended.

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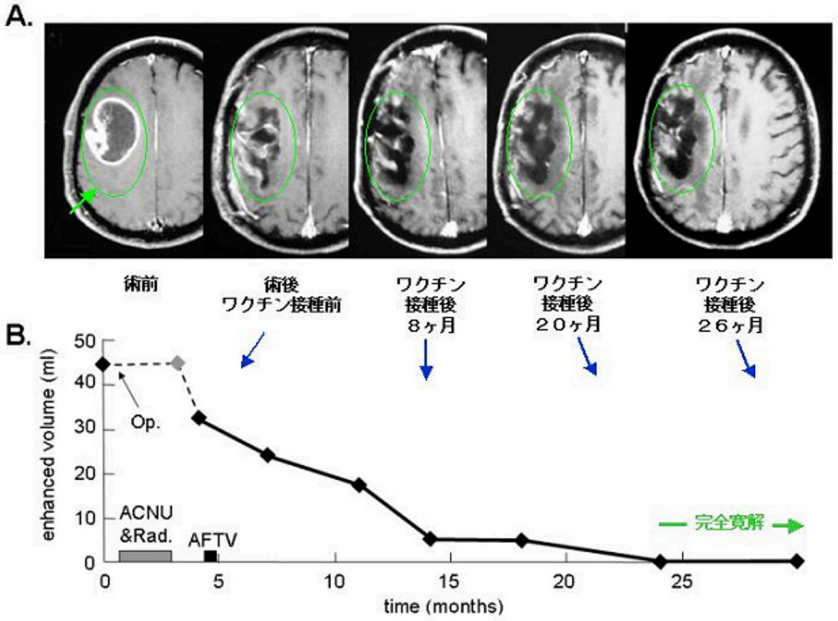
CASE REPORTS

BRAIN TUMOR

The Worst of the Worst, But Better for Over 10 Years



[Case 0039]

Among brain cancers (tumors), glioblastoma multiforme (Grade IV) is known as the most aggressive type with the poorest prognosis and is considered “the worst of the worst.” However, in this case, after surgery, autologous cancer vaccine therapy was administered, and the patient showed continuous improvement throughout the treatment process, achieving long-term survival.

Despite the standard treatment approach of “surgery + radiotherapy + anticancer drugs,” it is reported that this type of cancer has a high likelihood of recurrence. Experts state that treatment options are often limited. Indeed, in this patient, recurrence was observed 5 years after surgery.

The patient was diagnosed with glioblastoma (GBM, Grade IV). After surgery, 61.2 Gy radiotherapy was administered, followed by ACNU chemotherapy. Despite all these treatments, autologous cancer vaccine therapy was initiated in July 2003, and the process was followed with a multidisciplinary approach.

Although the second immune response test was negative, a remarkable reduction in tumor size was observed. In August 2004, MRI imaging showed that the tumor had shrunk, and partial remission (PR) was achieved. Approximately 24 months after surgery, complete remission (CR) was observed.

During this process, the patient not only showed clinical improvement but also returned to daily life activities. As of March 2013, follow-up controls confirmed that complete remission continued, and no recurrence findings were observed.

Long-term follow-up results are remarkable. As of 2021, the patient has lived in good health and achieved a total survival of approximately 18 years. This case demonstrates that even in advanced glioblastoma, long and high-quality survival is possible.

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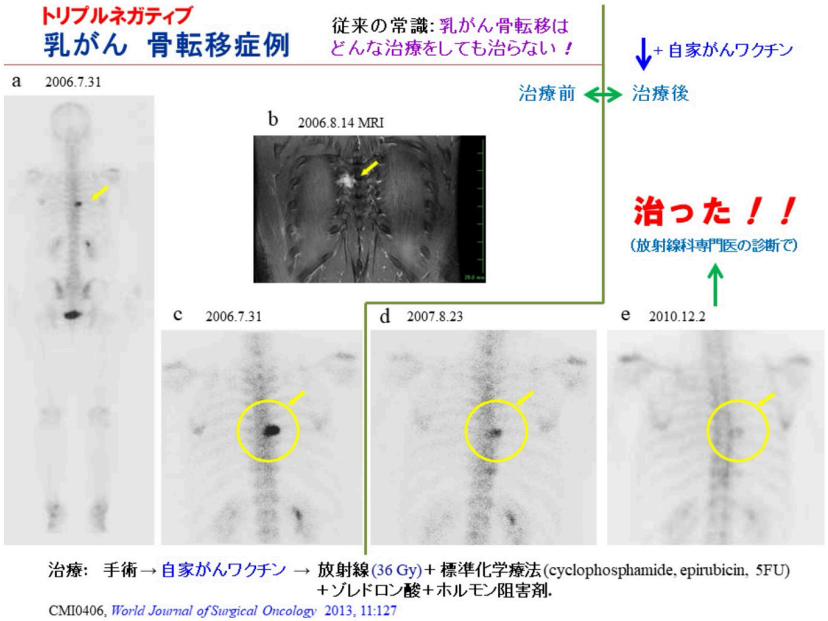
CASE REPORTS

BREAST CANCER

Bone Metastasis of Triple Negative Breast Cancer



[Case 2507]

In general, when breast cancer has metastasized to the bone, it is often said that no type of treatment (radiotherapy + anticancer drugs) can cure bone metastases from breast cancer. However, in cases where autologous cancer vaccine therapy has been used, the following outcomes have been observed:

This is a case of triple negative breast cancer with large bone metastases in the chest region and no response to hormone therapy.

After autologous cancer vaccine therapy (2006.08), the immune response (DTH-2 reaction) was found to be negative. Subsequently, combined treatment with radiotherapy and chemotherapy was applied. Tumor shrinkage was observed after 1 year, and after 3 years (2010.12), the bone metastases had completely disappeared.

No recurrence tendency was observed, and 5 years after surgery, it was evaluated as a clinical complete response (clinical CR) by a radiology specialist. As of February 2017, the patient remains healthy, and more than 10 years have passed since the surgery.

Regarding treatment methods for bone metastases in breast cancer, there is a physician-oriented guide titled “Breast Cancer Treatment Guidelines – 2013 Edition,” compiled from expert consensus. However, it includes statements such as:
“Bone antiresorptive agents (Zometa and denosumab) do not contribute to survival but reduce and delay skeletal-related events,” “Surgical resection is not recommended,” and “Radiotherapy is useful for relieving pain caused by bone metastases.” However, it is not stated anywhere that bone metastases can be completely cured—because there is no definitive cure.

Note: In general, studies involving 8,051 cases have shown that strong radiotherapy is more than 80% effective in relieving pain in breast cancer patients with bone metastases, but it

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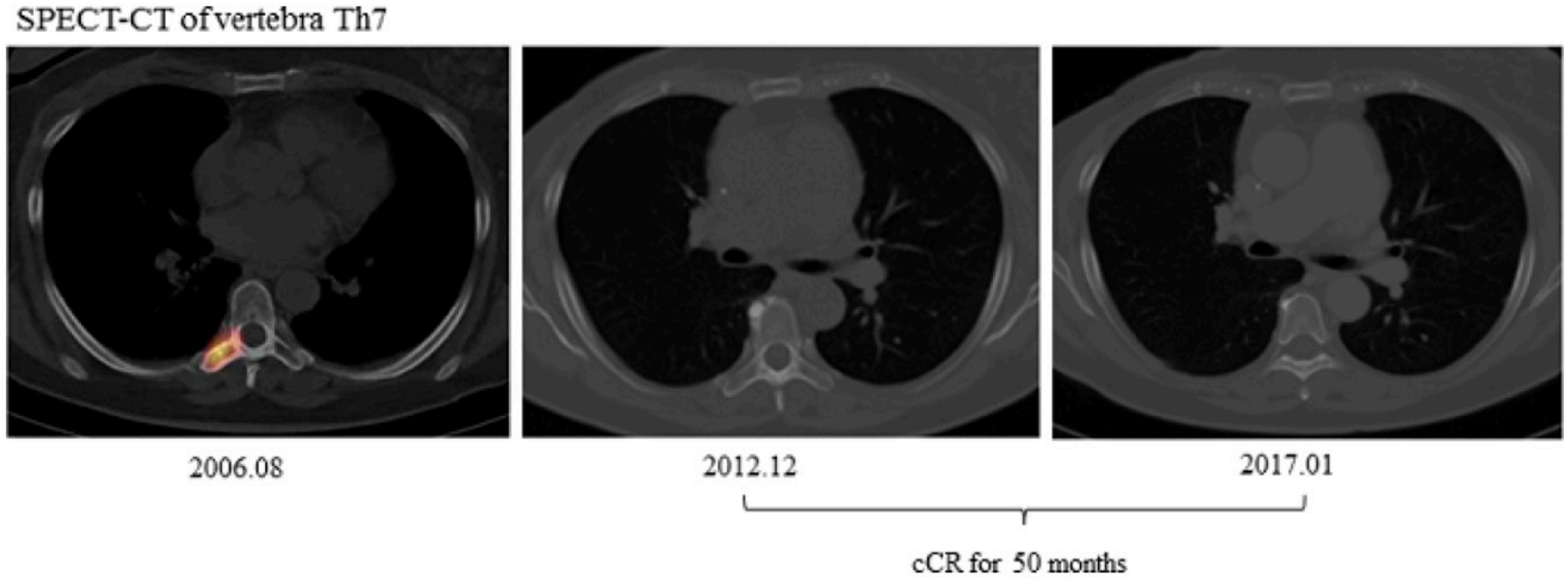
Source: https://cell-medicine.com/cases/46



cannot completely eliminate metastatic lesions (Falkmer U et al., Acta Oncologica, 2003; 42:620–33).

Additionally, in Japan it is stated that “the aim of bone metastasis treatment is not to completely eliminate cancer cells settled in the bone; unfortunately, this is not possible with current treatments” (Cancer Support Journal, editor: Atsushi Muraoka, Kagawa Rosai Hospital, March 2012).

Traditionally, it has been accepted that bone metastases from breast cancer cannot be completely cured regardless of the treatment applied (including radiotherapy and chemotherapy). However, in this case, clear recovery was achieved with a triple combination of autologous cancer vaccine + radiotherapy + chemotherapy, and it was concluded that this outcome resulted from the additional (contributory) effect of the autologous cancer vaccine.

The image shown above, which is not included in the article, represents the moment when the patient was “recovered.”

It has been confirmed that the bone metastasis lesions completely disappeared, and this was published as Figure 2 in the article (Kuranishi F et al., Int J Breast Cancer, 2018).

Furthermore, after achieving clinical complete response (cCR) throughout the body, including bone metastases, no recurrence findings were detected in bone scintigraphy and CT examinations dated January 29, 2018, and the cCR duration has exceeded 5 years. As of February 2023, the patient continues to live in good health without any issues.

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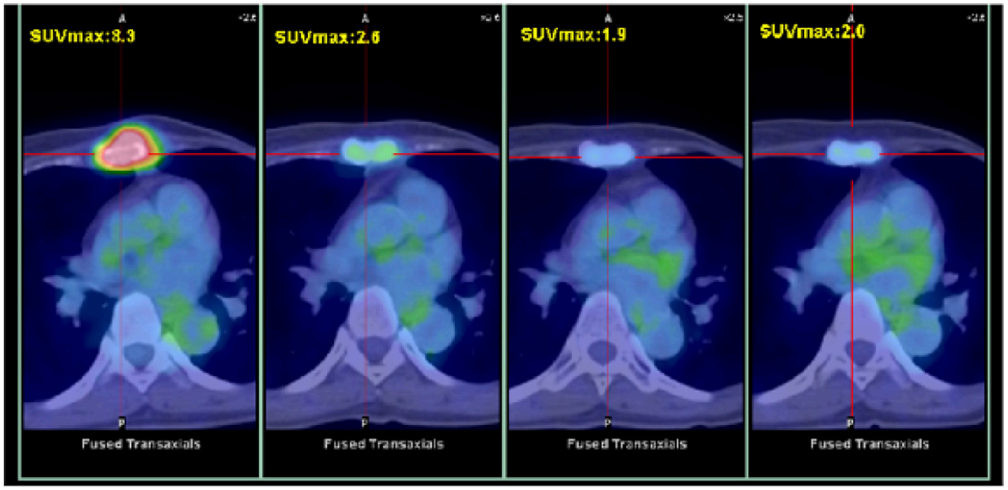
CASE REPORTS

BREAST CANCER

Effective Even in Bone Metastases



[Case 0984]

The patient, who underwent surgery for the primary tumor of breast cancer in March 2009, received autologous cancer vaccine therapy as the first-line treatment 4 months later. During the course of treatment, anti-hormonal agents were administered, and the patient was placed under a regular follow-up program.

Despite a long period of clinical stability, bone metastasis was detected in the sternum region approximately six years later. The patient was then re-evaluated, and autologous cancer vaccine therapy was administered for the second time. During this process, a significant decrease in the tumor marker CEA was observed.

In addition to the treatment process, two doses of nivolumab were administered between October and November 2015. Subsequently, a PET-CT evaluation conducted in February 2016 showed that the patient had achieved a complete clinical response (cCR).

In the follow-up period, regular monitoring was carried out, and this favorable condition was maintained. Examinations conducted up to August 2017 confirmed that the complete clinical response (cCR) persisted.

From the time of the initial diagnosis of bone metastasis, the patient remained in good clinical condition for more than 26 months, with the disease under control. This case is significant in demonstrating that long-term disease control can be achieved even in advanced-stage breast cancer with appropriate treatment combinations.

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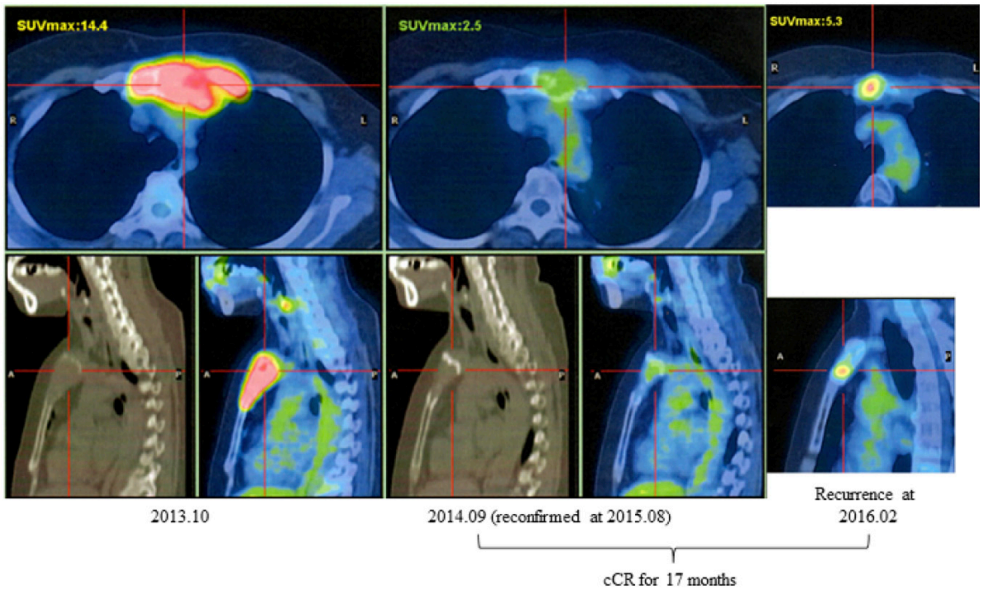
CASE REPORTS

BREAST CANCER

Remarkable Outcomes in Breast Cancer: Disease Control Even in Advanced Stages



[Case 2040]

The patient, diagnosed with breast cancer in June 2000, was initially treated with anti-hormonal medications and was followed for a long period with a stable clinical course. During this time, the disease remained under control with no significant signs of progression.

However, approximately 13 years later, the disease recurred and the patient was re-evaluated. In 2015, radiotherapy was administered, and autologous cancer vaccine therapy was initiated in addition. During the course of treatment, the patient also received zoledronic acid, tamoxifen, and letrozole, reflecting a comprehensive, multi-modal approach.

Evaluations during this period showed a positive response to treatment, and the patient was observed to enter a clinically significant improvement phase.

A complete clinical response (cCR) was first achieved in September 2014 and was confirmed again during follow-up evaluations in August 2015. This outcome was considered an important indicator of the effectiveness of the treatment combination.

However, in February 2016, a small recurrence was detected in the sternum region. Despite this, the patient's overall condition remained stable. Over the following 17 months, the state of complete clinical response (cCR) was maintained, and the disease remained under control.

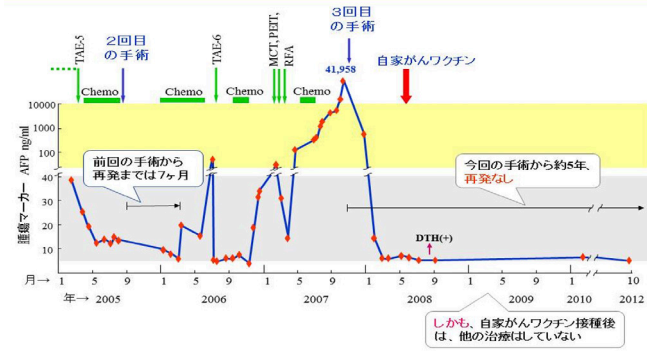
In the subsequent period, definitive radiotherapy was applied, and the recurrence in the sternum was completely eliminated. The patient has continued to live in good health for more than 40 months, making this case noteworthy in demonstrating the possibility of long-term disease control.

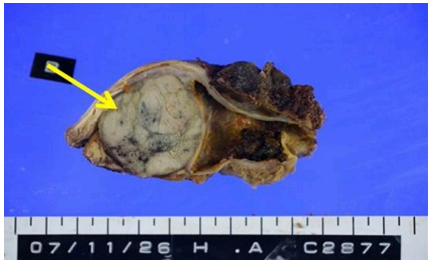
→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/46

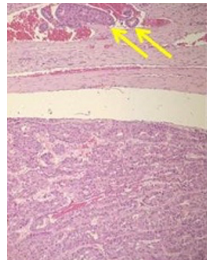
CASE REPORTS

LIVER CANCER

Long-Term Recurrence-Free Follow-Up in Recurrent Liver Cancer: A Remarkable Case







[Case 0157]

This is a case of liver cancer that developed on a background of Hepatitis C. Due to frequent recurrences between August 2001 and November 2007, the patient underwent a total of 29 treatments. These included 6 transarterial embolizations, 3 acetic acid injections, 2 radiofrequency ablations, 1 microwave therapy, 2 ethanol injections, 1 hepatic arterial chemotherapy, 11 courses of systemic chemotherapy, and 3 surgical operations.

Before the final surgery, the tumor marker AFP level was extremely high at 41,958. Although a temporary decrease was observed after surgery, it was thought that it might rise again, and autologous cancer vaccine therapy was administered in July 2008.

Following this treatment, the patient lived in good health for more than 43 months without showing any signs of recurrence.

Considering the previously frequent recurrence despite multiple treatments, this outcome is regarded as highly remarkable. The responsible physician at the university hospital where the surgery was performed also expressed surprise and satisfaction with this long-term stable condition.

(Note) The image above shows the liver tumor removed during the patient's third surgery (yellow arrow on the left). During the operation, part of the diaphragm was also removed along with the tumor. On the right side, the pathological image of the same tumor is shown. Vascular invasion is observed in the upper section (yellow arrow), suggesting that cancer cells may have spread throughout the liver. Therefore, recurrence was considered inevitable in this case.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/42

CASE REPORTS

LIVER CANCER

7 Years Recurrence-Free in Advanced Liver Cancer: A Case Beyond Expectations

[Case 0260]

The patient is a carrier of the Hepatitis B virus. In May 2005, they presented to the emergency department with sudden pain in the right rib area. A CT scan revealed multiple liver tumors and the presence of ascites.

In June, angiography identified a tumor approximately 9 cm in diameter protruding outward from the lower part of the liver. Based on clinical findings, peritoneal dissemination was suspected, and a diagnosis of ruptured hepatocellular carcinoma was made.

In July, surgical resection was performed, followed by the initiation of autologous cancer vaccine therapy in September. This case was evaluated as a high-risk and aggressively progressing disease.

In follow-up feedback received from the patient in July 2012, the patient stated:

"So far, I have experienced no recurrence, metastasis, or significant side effects, and I am living a normal life." The fact that the disease did not recur for 7 years is considered a highly remarkable clinical outcome.

(Note) Under normal conditions, when multiple liver tumors and ascites are detected during surgery, the spread of cancer cells to the peritoneum (peritoneal dissemination) is considered almost inevitable, and recurrence is expected after surgery. This risk is especially higher in patients diagnosed with tumor rupture.

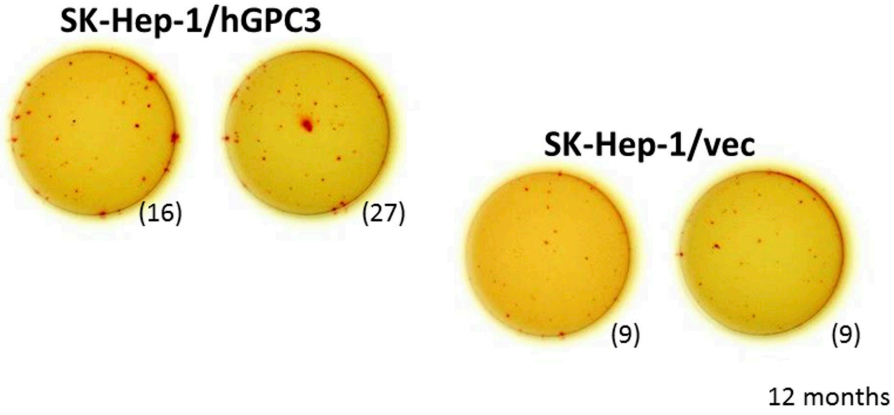
Despite this, the absence of recurrence for 7 years following autologous cancer vaccine therapy makes this case a strong and exceptional treatment response.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/42

CASE REPORTS

LIVER CANCER

Immune System–Mediated Control: 10 Years Recurrence-Free Success



[Case 1680]

Autologous cancer vaccine therapy targets antigen molecules specific to hepatocellular carcinoma and aims to eliminate cancer cells through the immune system.

Diagnosed with liver cancer in 2002, the patient underwent surgical resection. During the treatment process, interferon therapy was also administered for chronic hepatitis C, and in April 2004, autologous cancer vaccine therapy was initiated due to recurrence.

After the initial treatments, the patient experienced recurrences in April 2004 and June 2005. In these periods, the number of tumor lesions increased to 5 and then to 8. Following autologous cancer vaccine therapy, tumor progression was brought under control.

After 12 years of autologous cancer vaccine therapy, the patient was found to have no recurrence and remained in good health.

T lymphocytes (CTL) were detected, and this finding has been reported in a scientific article.

(Note) Glypican-3, a protein frequently expressed in hepatocellular carcinoma, is used as a target molecule for immunotherapy. CTLs are known to recognize and destroy cancer cells. In this case, the presence of CTLs is considered a key indicator supporting the effectiveness of the treatment.

Furthermore, despite recurrence after surgery, the disease was controlled through the immune response, and no recurrence was observed for more than 10 years. This suggests that autologous cancer vaccine therapy may provide long-term disease control in hepatocellular carcinoma.

In conclusion, this case demonstrates that long-term recurrence-free survival can be achieved through immune system–based approaches.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/42

CASE REPORTS

STOMACH CANCER

Peritoneal Dissemination

In gastric cancer cases diagnosed with peritoneal dissemination, cancer cells spread throughout the abdomen; therefore, even if the initial treatment appears successful, recurrence is considered inevitable. It is generally believed that this condition cannot be treated effectively with standard chemotherapy. However, the following two cases are examples of surprising outcomes reported by clinicians in the field.

[Case 0615]

According to the physician's assessment, in a case of gastric cancer with pancreatic membrane invasion and carcinomatous peritonitis, if anticancer drugs were not administered after surgery, the patient's remaining life expectancy would be limited to only a few months. Due to the widespread and aggressive nature of the disease, treatment options were considered very limited.

In October 2007, the patient received autologous cancer vaccine therapy, and no alternative treatment approach was available. Following the treatment, the patient was placed under close follow-up, and the general condition was regularly evaluated.

As of September 2008 (approximately one year later), the patient was observed to be healthy and without issues. No clear signs of clinical recurrence were detected, and overall performance status remained very good. It was reported that the patient was able to return to daily life activities and even reached a level of physical activity sufficient to go on mountain hikes.

[Case 0039]

During gastric cancer surgery in November 2008, peritoneal dissemination was detected. Due to the extent of the disease, the surgical procedure was expanded, and involvement of the transverse colon was observed, leading to resection of this region as well. This finding was considered a significant indicator of advanced-stage disease.

In December, the patient received autologous cancer vaccine therapy, along with additional treatments of hyperthermia and high-dose vitamin C. This multi-modal approach aimed to bring the disease under control.

Following treatment, the patient was monitored regularly, and the overall condition remained stable. As of April 2010, no signs of recurrence were observed, and despite 1 year and 4 months having passed since surgery, the disease remained under control. During this period, the patient maintained quality of life and was able to continue daily activities actively.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/41

CASE REPORTS

STOMACH CANCER

Long-Term Recovery from a Nearly Lost Patient

[Case 1046]

After surgery, chemotherapy was administered for 1 year. During chemotherapy, the tumor marker AFP remained around 40–50 and did not decrease, and the patient's body weight rapidly dropped from 65 kg to around 40 kg.

After a one-month break from medication, autologous cancer vaccine therapy was administered in November 2009. During a follow-up evaluation in July 2010, the patient could not be reached, and it was presumed by Tokai Clinic that the patient had passed away.

However, in September 2012, the patient's family provided information by phone, reporting that even 3 years after the autologous gastric cancer vaccine, the AFP level was around 2–3. In July 2013, it was stated that the patient had fully recovered, returned to work, and was highly satisfied. Additionally, a request was made for further information about the vaccine for a friend.

Further communication in 2016 and 2017 confirmed that the patient continued to have no health issues. The patient also stated, "I survived thanks to the autologous cancer vaccine."

(Note): AFP-producing gastric cancer is considered a highly aggressive type with strong vascular invasion, frequent liver metastasis, and a high recurrence rate even after curative surgery, resulting in a poor prognosis (Shiina Nobumitsu et al., Chiba Medical Journal, 2012).

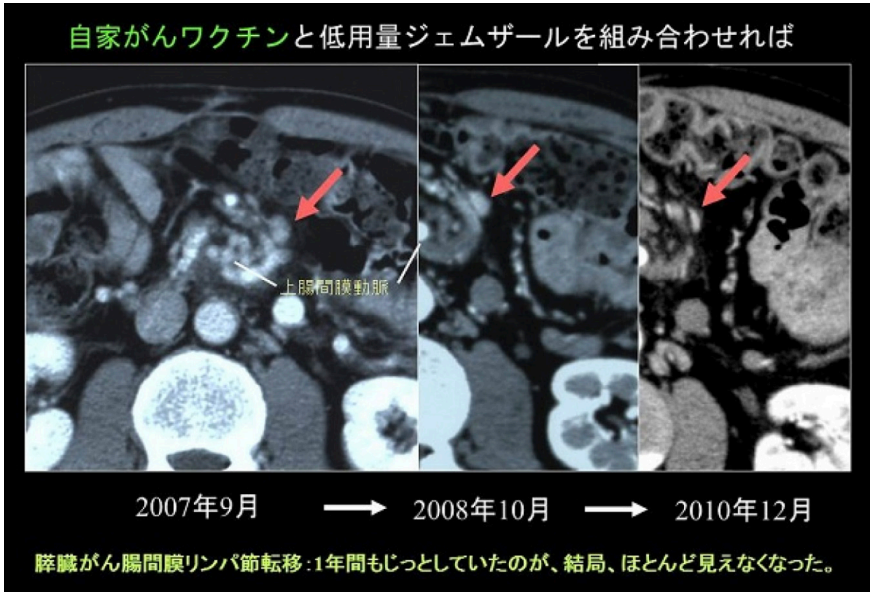
At the end of 2009, the patient's condition was so severe that the responsible physician evaluated it as "(presumed) death." However, information received from the family in 2013 revealed that the patient was alive, making this case an extremely remarkable and highly effective example—described as "the return of a patient who was thought to have died."

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/41

CASE REPORTS

PANCREATIC CANCER

Despite Spread to Lymph Nodes



[Case 0039]

Pancreatic cancer is generally considered inoperable when it spreads to mesenteric lymph nodes located near major blood vessels extending to the spine, and is often rejected by most surgeons. However, in this case, the patient continued treatment with “low-dose chemotherapy,” aimed at reducing the dosage of anticancer drugs, in addition to autologous cancer vaccine therapy. As a result of this approach, the tumor size regressed within approximately three years to a level that no longer posed a clinical problem.

In June 2006, the patient underwent pancreaticoduodenectomy (Whipple procedure) due to pancreatic head cancer. After surgery, adjuvant chemotherapy with gemcitabine (Gemzar) was initiated, administered initially at a dose of 1500 mg per body every two weeks, and a total of 21 cycles were completed starting from January 2007.

In October 2007, autologous cancer vaccine therapy was administered, and from October 2008 onward, treatment continued with a lower dose of gemcitabine (1000 mg per body, every two weeks, with more than 20 administrations in total). During this period, mesenteric lymph node metastasis was considered clinically significant and associated with a high risk of recurrence.

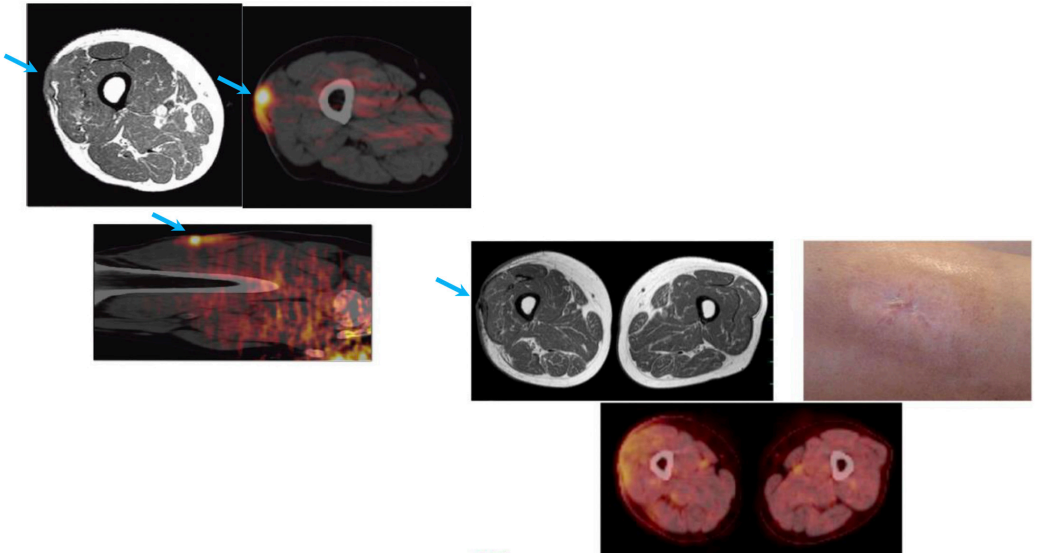
Despite this, the lesion had almost completely disappeared by the end of December 2010. In long-term follow-up, the patient’s condition remained stable, and as of January 2019, it was reported that the patient continued to live a normal life without any signs of recurrence. The responsible physician evaluated the case as having achieved a “cure (complete recovery).” This case is noteworthy in demonstrating that even in advanced-stage pancreatic cancer, durable responses can be achieved with appropriate treatment combinations.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/45

CASE REPORTS

SOFT TISSUE CANCER

Survived Without Leg Amputation



[Case 0374]

This is a case of soft tissue sarcoma, a type of cancer that can develop in the arms, legs, and feet. Due to the size and location of the tumor, surgical removal was not considered possible; therefore, treatment was continued with autologous cancer vaccine therapy instead of surgery. During this process, regression of the tumor was observed, and the disease was brought under control.

However, as the disease progressed, tumor enlargement was observed. The patient was diagnosed with malignant fibrous histiocytoma (MFH), a type of cancer known for its aggressive behavior and high risk of recurrence. Despite these conditions, autologous cancer vaccine therapy was continued, and the disease was stabilized over the long term.

At the time of initial evaluation, the tumor measured approximately 3 cm; however, it later grew to over 5 cm. This indicated a high degree of malignancy.

Instead of limb amputation, which is often required in such cases, the tumor was surgically removed while preserving the limb. After surgery, autologous cancer vaccine therapy was administered as adjuvant treatment.

In the postoperative follow-up period, no recurrence was observed for more than 4 years. As of January 2007, no recurrence findings were detected, and the patient remained in good health.

This case is noteworthy as it demonstrates that even in high-risk soft tissue sarcoma, long-term disease control can be achieved with appropriate treatment strategies.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/49

CASE REPORTS

OSTEOSARCOMA

Long-Term Recurrence-Free Survival Despite Amputation in Recurrent Osteosarcoma

[Case 0310]

Osteosarcoma is an aggressive type of tumor that develops from cancerous bone cells. When the tumor is localized, it can be surgically removed; however, once metastasis occurs—especially to the lungs—the prognosis significantly worsens.

In this case, despite the use of anticancer drugs, the disease could not be controlled and recurred multiple times.

The disease began in July 1998 when the patient was 24 years old. Due to intense chemotherapy and its side effects, lung metastases developed within 2 years, and a total of 5 surgical operations were performed during this period. Ultimately, the patient's right leg had to be amputated.

In February 2006, autologous cancer vaccine therapy was initiated. Although the second immune response test was negative, during the follow-up period, no recurrence was observed for more than 6 years.

The patient is currently actively working, and despite using a prosthetic leg, performance status (KPS) is evaluated at over 100%. The responsible physician considers the patient to be "recovered."

As of January 2018, updated records show that the patient remains in good condition and has lived recurrence-free for more than 10 years. This case is noteworthy in demonstrating that long-term disease control is possible even in advanced and recurrent osteosarcoma.

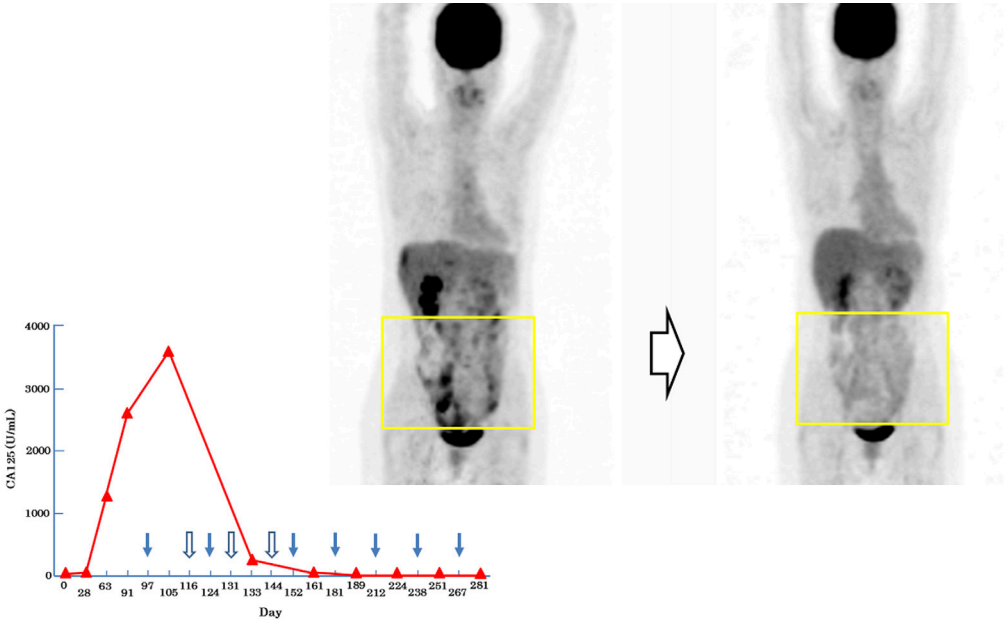
Additionally, the patient's experience has been shared in a book titled "Red Crane."

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/49

CASE REPORTS

PERITONEAL CANCER

Don’t Give Up Easily



[Case 1276]

Peritoneal cancer is a type of cancer that develops in the peritoneum surrounding the abdominal organs and is often confused with ovarian cancer in women.

The combination of paclitaxel + carboplatin is the standard treatment; however, it is a form of chemotherapy with serious side effects. When this treatment becomes ineffective, treatment options are quite limited.

For this reason, some patients have preferred a combined treatment approach including autologous cancer vaccine therapy.

A 53-year-old female patient was diagnosed with primary serous peritoneal carcinoma (PPSC). Due to the widespread nature of the disease, surgery was not performed initially, and 6 cycles of chemotherapy were administered. After recurrence, a 3 cm ileal metastasis was surgically removed, and chemotherapy was resumed.

During follow-up, CA125 levels increased rapidly, and multiple recurrences were detected in PET-CT scans. It was observed that the intervals between recurrences gradually shortened.

At this point, autologous cancer vaccine therapy was added, and a remarkable response was observed. All tumors detected in PET-CT disappeared, CA125 levels significantly decreased, and the complete remission (CR) status was maintained for approximately 281 days.

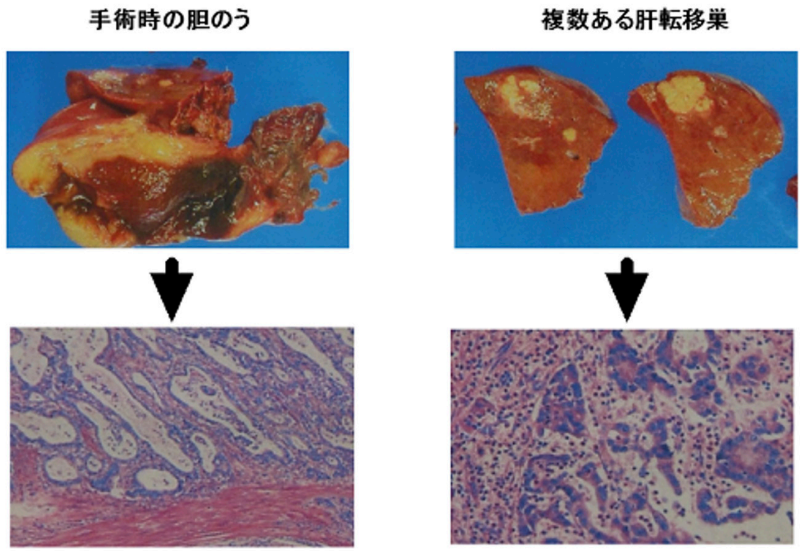
Although recurrence occurred again after 310 days and the patient passed away 16.5 months later, achieving survival longer than 1 year in a disease that could not be controlled with standard treatments is considered an important clinical outcome.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/49

CASE REPORTS

GALLBLADDER CANCER

A Change of Doctor Saved Her Life



Moderately differentiated tubular adenocarcinoma

Metastatic adenocarcinoma

[Case 1381]

Gallbladder cancer is extremely difficult to treat surgically when there is liver or lymph node metastasis. If surgery fails and the primary doctor gives up, it can feel as if the patient has been abandoned. However, in this case, the patient transferred to another hospital and survived through autologous cancer vaccine therapy.

The patient is a 61-year-old woman. In May 2011, she underwent surgery at a university hospital due to gallbladder cancer. During surgery, liver metastases were already detected (as shown in the images below), and metastases were also found in lymph nodes in two regions of the liver. The gallbladder, bile ducts, lymph nodes, and part of the liver were resected. However, recurrence was considered inevitable.

After surgery, due to complications, the patient developed fever, remained hospitalized for a long time, and experienced severe weight loss (down to around 40 kg). Since no further treatment options were offered, the patient was effectively left without care.
Seeking further treatment, the patient left the hospital and transferred to another institution in August 2011, where autologous cancer vaccine therapy was initiated as a first-line postoperative treatment. During follow-up, standard low-dose gemcitabine + TS-1 therapy was administered until April 2015.

In PET scans conducted during follow-up, complete remission (CR) status was observed for more than 5 years, and the patient maintained a generally good condition.

Although the physician at the second hospital initially believed the improvement was due to chemotherapy, doctors at Onomichi General Hospital later evaluated the case and concluded that chemotherapy alone could not have caused the complete disappearance of liver metastases from gallbladder cancer. This outcome was considered to be due to the effect of the autologous cancer vaccine.

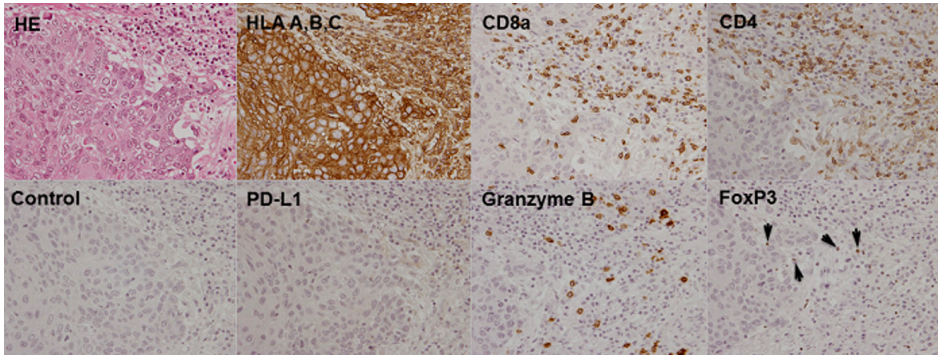
As of June 2021, based on information received from Onomichi General Hospital, the patient remains completely healthy. More than 10 years have passed since the surgery, and even the hospital where chemotherapy was administered has expressed surprise at the result.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/49

CASE REPORTS

RENAL PELVIS CANCER

Remarkable Outcome with Autologous Cancer Vaccine



[Case 2114]

In this case, the patient presented with a diagnosis of renal pelvis cancer, and multiple metastases were detected in the lungs and in the lymph nodes around the abdominal aorta. Due to the widespread nature of the disease and its metastatic distribution, the clinical condition was evaluated as advanced stage. The pathologist who examined the case clearly stated that “from a pathological perspective, this is an incurable cancer.”

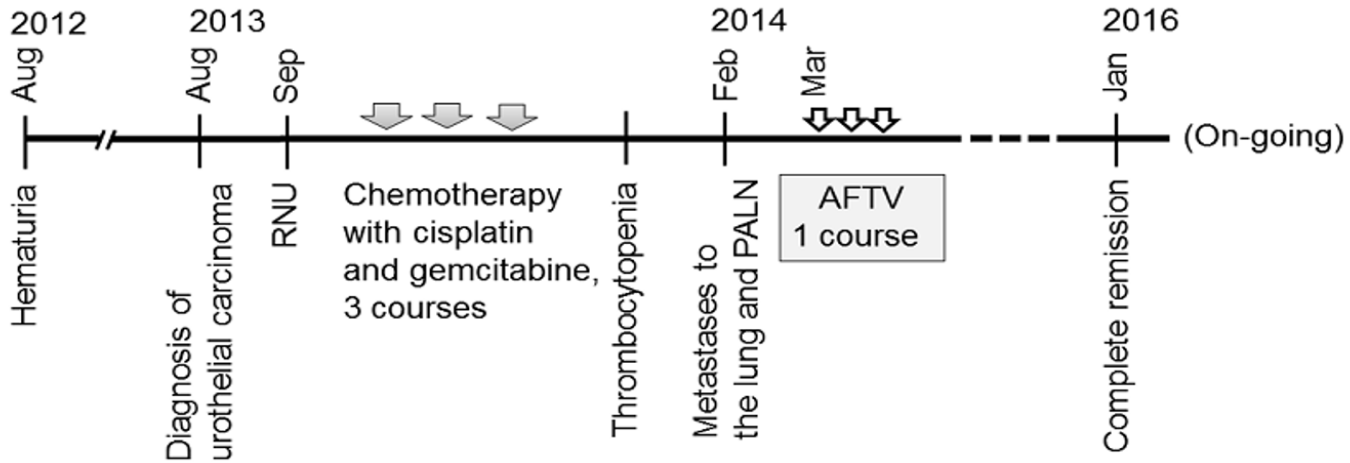
Despite initial chemotherapy, the patient developed severe side effects, including significant thrombocytopenia even after a single treatment session. This negatively affected the patient’s overall condition and made continuation of treatment difficult. As a result, the patient decided, “I no longer want to receive chemotherapy,” discontinued the current treatment, and turned to autologous cancer vaccine therapy as an alternative approach.

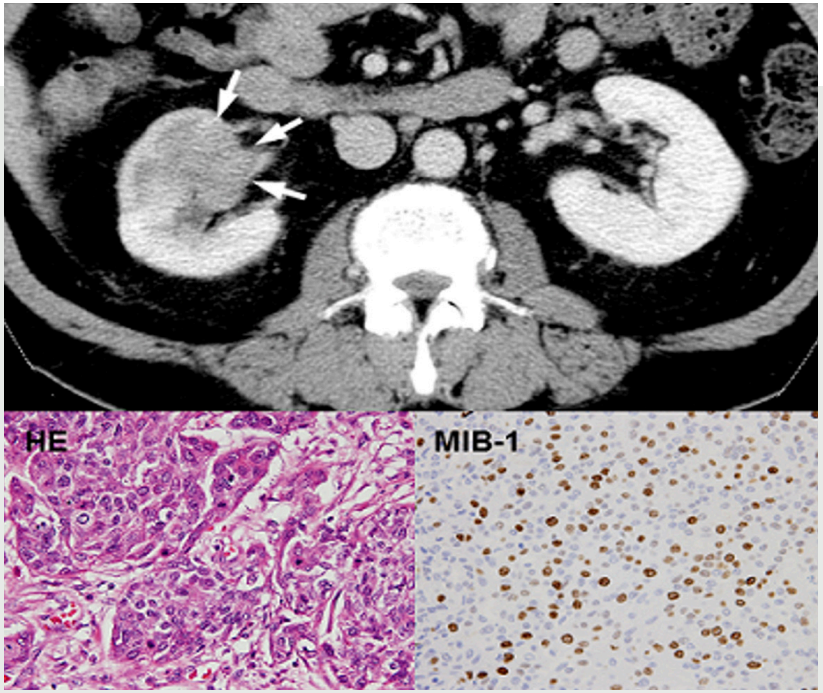
Following autologous cancer vaccine therapy, a remarkable clinical response was observed. Imaging and follow-up evaluations showed that lung metastases had completely disappeared, and lymph node metastases around the abdominal aorta had significantly regressed and were no longer detectable.

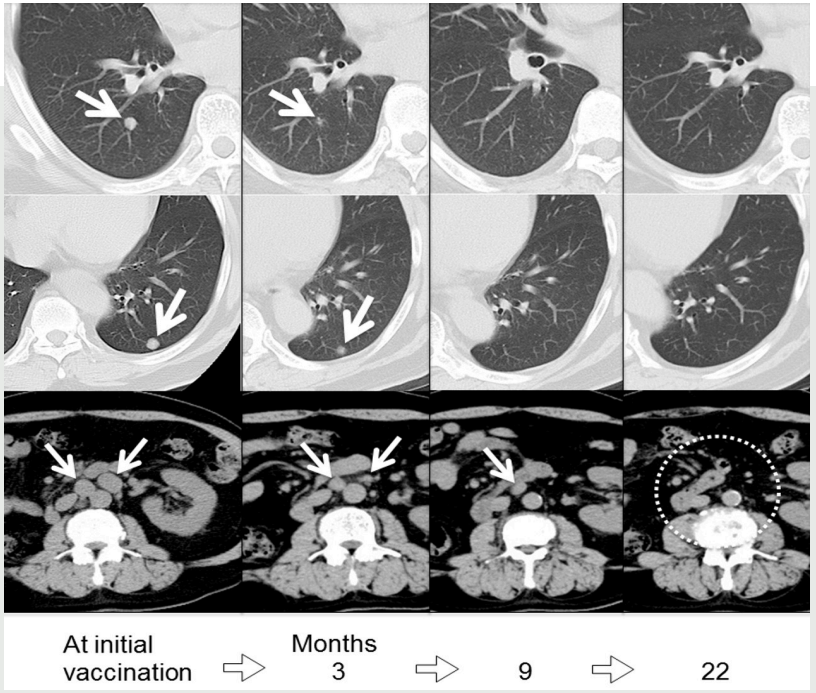
Considering that the disease was initially evaluated as “incurable,” this outcome is highly striking. Additionally, a clear improvement in the patient’s general condition was observed, with increased performance status and the ability to continue daily activities more comfortably.

The responsible physician also expressed surprise at this outcome, stating, “it really worked,” and evaluated this case as a notable example of clinical success.

→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/44


2012
Aug
Hematuria
2013
Aug
Diagnosis of urothelial carcinoma
Sep
RNU
Chemotherapy with cisplatin and gemcitabine, 3 courses
2014
Feb
Thrombocytopenia
Mar
Metastases to the lung and PALN
AFTV 1 course
2016
Jan
Complete remission
(On-going)

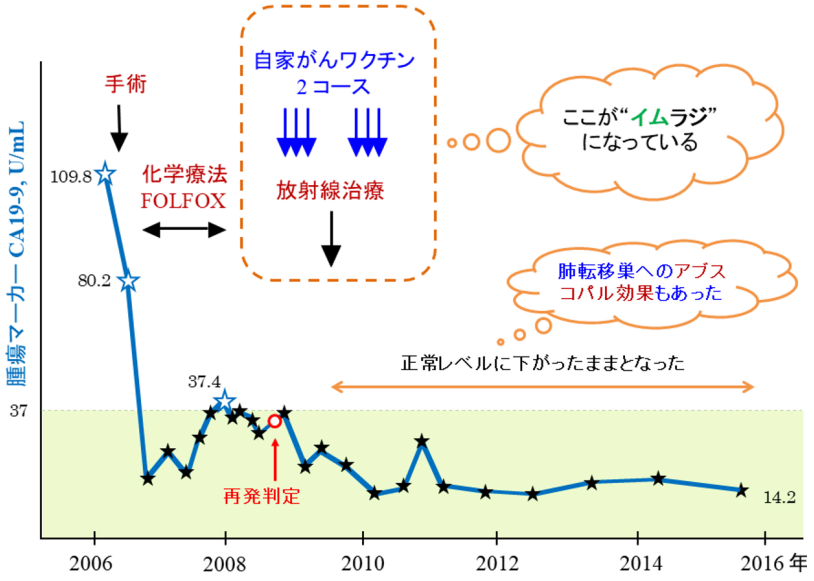

HE
MIB-1


At initial vaccination
Months
3
9
22

CASE REPORTS

COLORECTAL CANCER

Complete Response with Abscopal Effect in Stage IV Colon Cancer and Long-Term Follow-Up



[Case 0094]

In this case, widespread metastasis was present in colon cancer (especially lung metastasis and intra-abdominal lymph node metastasis), and it was evaluated as a condition that could not be completely cured with standard treatments. However, palliative surgical intervention was performed for symptom control, and the patient was closely monitored.

A 67-year-old male patient was diagnosed with Stage IV colon cancer and had metastases in the lungs and 11 lymph nodes in the abdominal region. Surgical removal of lymph nodes (lymph node dissection) was performed.

After surgery, treatment with tegafur/uracil continued for 8 cycles, followed by FOLFOX chemotherapy. Despite treatment, tumor growth continued. In May 2008, treatment was restarted, but lung metastases emerged again. During this period, the patient experienced a cerebral infarction (stroke), and chemotherapy was discontinued.

In August 2009, autologous cancer vaccine therapy was initiated. After 2 courses of immunotherapy, lung metastases disappeared. This outcome is considered an example of the abscopal effect (a phenomenon where treatment in one area leads to regression in distant tumor sites).

During this treatment period, primary tumor lesions were reduced through radiotherapy, and lymph node metastases in the abdominal region completely disappeared. Additionally, after radiotherapy, metastatic lesions in the lungs also disappeared. This condition is considered to reflect the systemic effect of treatment.

The patient has survived for more than 5 years without recurrence, making this case a remarkable example of long-term disease control.

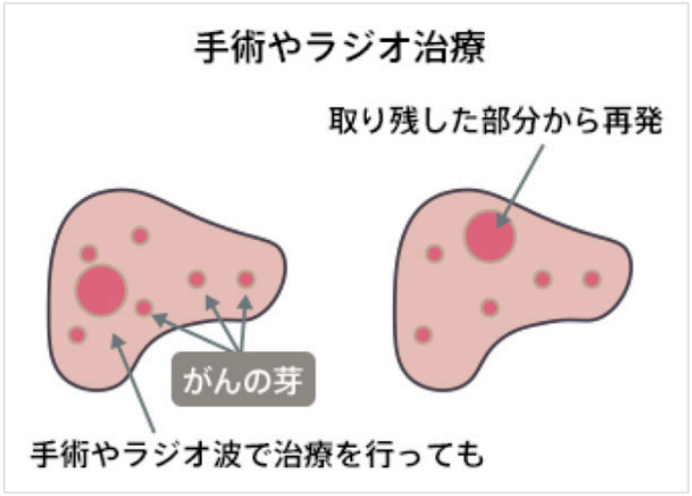
→ Case reports in this document are taken unchanged from the official Cell-Medicine website.
Source: https://cell-medicine.com/cases/38

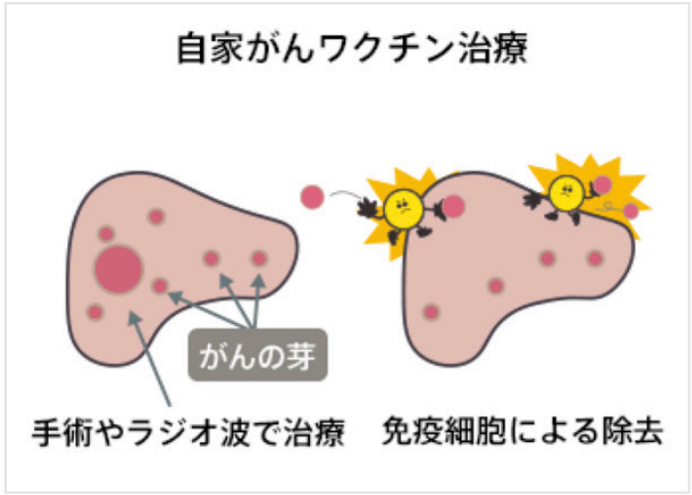
THE DIFFERENCE BETWEEN SURGERY & RADIOFREQUENCY TREATMENT AND “AUTOLOGOUS CANCER VACCINE”

One of the main reasons for frequent recurrence in liver cancer is that, despite local treatments such as surgical resection or radiofrequency ablation, microscopic cancer cells dispersed within liver tissue cannot be completely eliminated. These cells are often undetectable with imaging methods and may continue to exist after treatment, leading to recurrence over time. Therefore, even treatments that initially appear successful may result in relapse.

Additionally, the vascular structure and biological characteristics of the liver facilitate the spread of cancer cells within the organ. In hepatocellular carcinoma in particular, vascular invasion and intrahepatic dissemination are commonly observed, increasing the risk of recurrence. Currently, there is no definitive treatment that can completely prevent recurrence.

Autologous cancer vaccine therapy offers a different approach. This method activates the immune system using antigens derived from the patient’s own tumor, aiming to identify and eliminate residual cancer cells that may remain after surgery. In this way, it can provide a systemic defense against cells that conventional treatments cannot eliminate, potentially contributing to a reduced risk of recurrence.





PHASE I / PHASE II
EARLY-STAGE CLINICAL TRIALS

Autologous Cancer Vaccine and Significant Reduction in Recurrence Rates: Comparative Clinical Results

The blue line in Figure 1 represents a historical control group of 24 patients who underwent surgery for liver cancer between 1998–1999. The vertical axis of the graph indicates the proportion of patients who remained recurrence-free over a given period. This group consists solely of patients treated with surgery and is important in reflecting the outcomes of the conventional approach.

In standard practice, surgical intervention aims to completely eliminate liver cancer by removing all visible tumor tissue during the operation. However, in this series, despite complete removal of all visible tumors, recurrence was observed in 63% of patients within the first 12 months. This is considered to be related more to the biological nature of the disease rather than the surgical technique. These results are regarded as expected, particularly in a high-risk group where tumors larger than 50 mm are more frequently observed.

The red line in Figure 1 represents the group of patients who received autologous cancer vaccine therapy. In these patients, a total of three vaccine doses were administered at least 4 weeks after surgery, allowing time for the immune system to recover. This group, treated by the same surgical team between 2000–2001, provides valuable comparative data.

In this group, recurrence was observed in only 2 out of 12 patients (17%), while no significant recurrence was detected in the remaining patients.

図1

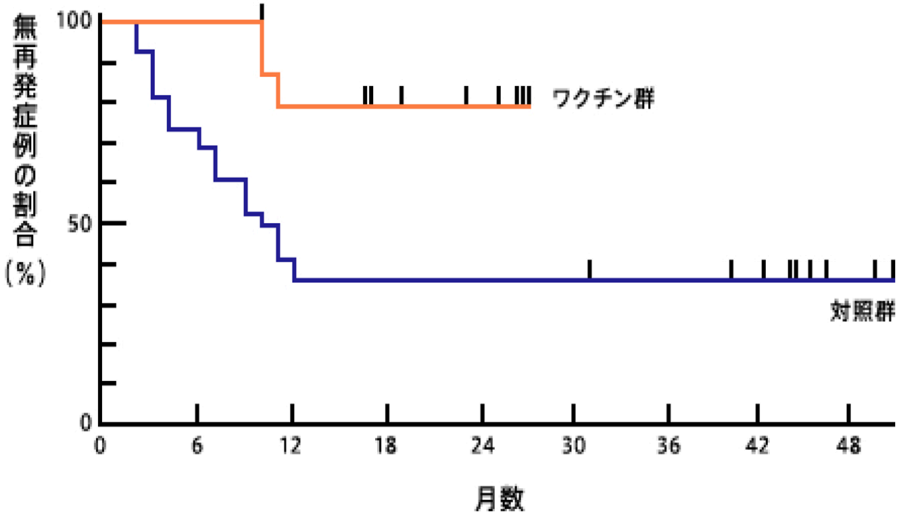
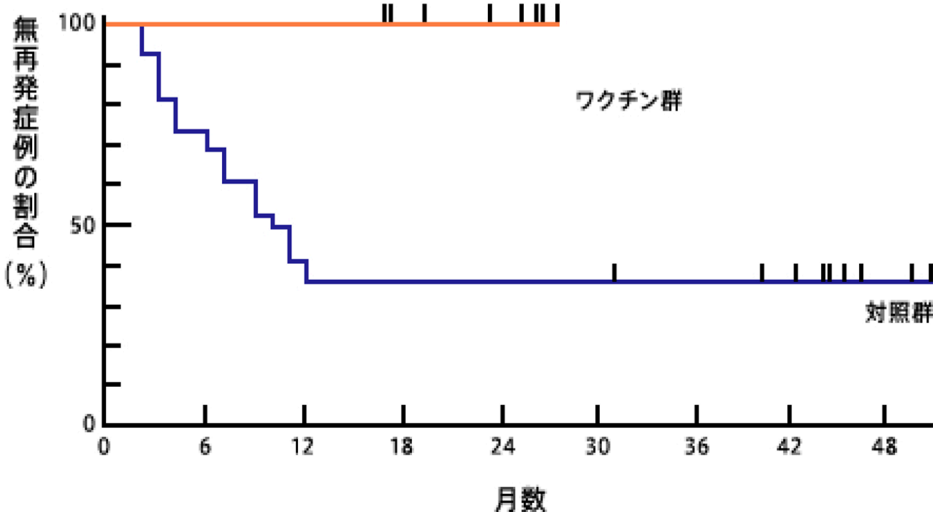


図2



Among the 10 patients without recurrence, it was reported that as of April 2002, the disease had still not returned. These findings suggest that autologous cancer vaccine therapy administered after surgery may significantly reduce recurrence rates.

Additionally, delayed-type hypersensitivity (DTH) tests conducted to evaluate immune response in vaccinated patients revealed noteworthy findings. Among the 8 patients who showed a positive DTH reaction, treatment effectiveness appeared to be more pronounced. This supports the idea that activation of the immune system may be directly associated with clinical outcomes.

The DTH test is a method used to measure immune response, similar to the tuberculin skin test. In this test, antigens derived solely from the patient's own tumor tissue are used. A positive result indicates that the immune system is capable of recognizing tumor cells and mounting a targeted response. This finding is considered important immunological evidence supporting the mechanism of action of autologous cancer vaccine therapy.

LITERATURE AND SCIENTIFIC PUBLICATIONS

KEY ARTICLES

- 43 - 2018.01.22
- Kuranishi F, Imaoka Y, Sumi Y, Uemae Y, Yasuda-Kurihara H, Ishihara T, Miyazaki T, Ohno T. Rate of Clinical Complete Response for 1 Year or More in Bone-Metastatic Breast Cancer after Comprehensive Treatments including Autologous Formalin-Fixed Tumor Vaccine. Int J Breast Cancer, 2018;article ID 4879406, 11 pages.
- 42 - 2018.01.08
- Imaoka Y, Kuranishi F, Miyazaki T, Yasuda-Kurihara H, Ohno T. Long-lasting complete response status of advanced stage IV gall bladder cancer and colon cancer after combined treatment including autologous formalin-fixed tumor vaccine: Two case reports. World Journal of Surgical Oncology, 2017;15:170.
- 41 - 2017.12.28
- Miyoshi T, Kashiwabara T, Asahi A, Kataoka T, Maruyama T, Okada R, Uemae Y, Ohno T. Complete remission of chemo-refractory multiple-metastatic upper tract urothelial carcinoma by autologous formalin-fixed tumor vaccine. Clin Case Reports, 2017;5:1780–1784.
- 40 - 2016.06.13
- Miyoshi T, Kataoka T, Asahi A, Maruyama T, Okada R, Uemae Y, Ohno T. A transient increase and subsequent sharp decrease of chemo-refractory liver-metastasized uterine cervical small cell carcinoma to autologous formalin-fixed tumor vaccine plus anti-PD-1 antibody. Clin Case Reports, 2016; 4(7): 687–691.
- 39 - 2015.10.11
- Chen JT, Ohno T. Recurrent peritoneal serous carcinoma that was unmanageable with paclitaxel–carboplatin therapy responded to autologous formalin-fixed tumor vaccine. Clinical Case Reports, Article first published online: 2 SEP 2015 DOI: 10.1002/ccr3.353
- 38 - 2015.08.19
- Kawashima I, Kawashima Y, Matsuoka Y, Fujise K, Sakai H, Takahashi M, Yoshikawa T, Nakatsura T, Ishihara T, Ohno T. Suppression of postsurgical recurrence of hepatocellular carcinoma treated with autologous formalin-fixed tumor vaccine, with special reference to glypican-3. Clin Case Rep. 2015 Jun;3(6):444-7. doi: 10.1002/ccr3.279. Epub 2015 Apr 17.

- 37 - 2014.07.04
- Ishikawa E, Muragaki Y, Yamamoto T, Maruyama T, Tsuboi K, Ikuta S, Hashimoto K, Uemae Y, Ishihara T, Matsuda M, Matsutani M, Karasawa K, Nakazato Y, Abe T, Ohno T, Matsumura A. : Phase I/IIa trial of fractionated radiotherapy, temozolomide, and autologous formalin-fixed tumor vaccine for newly diagnosed glioblastoma. J Neurosurg. 2014 Sep;121(3):543-53. doi: 10.3171/2014.5.JNS132392. Epub 2014 Jul 4.
- 36 - 2013.06.04
- Fumito Kuranishi and Tadao Ohno: Eradication of breast cancer with bone metastasis by autologous formalin-fixed tumor vaccine (AFTV) combined with palliative radiation therapy and adjuvant chemotherapy: a case report. World Journal of Surgical Oncology 2013, 11:127. Published online 2013 June 4. doi: 10.1186/1477-7819-11-127
- 35 - 2012.12.24
- Yoshihiro Muragaki, Takashi Maruyama, Hiroshi Iseki, Masahiko Tanaka, Chie Shinohara, Kintomo Takakura, Koji Tsuboi, Tetsuya Yamamoto, Akira Matsumura, Masao Matsutani, Katsuyuki Karasawa, Katsunori Shimada, Naohito Yamaguchi, Yoichi Nakazato, Keiki Sato, Yoji Uemae, Tadao Ohno, and Tomokatsu Hori: Erratum of no. 31: Phase I / IIa Trial of Autologous Formalin-fixed Tumor Vaccine Concomitant with Fractionated Radiotherapy for Initially-Diagnosed Glioblastoma. J. NeuroSurgery, 2013 (e-pub ahead, 2012.12)
- 34 - 2012.07.09
- Toshio Inui and Tadao Ohno: Autologous formalin-fixed tumor vaccine suppressed re-recurrence of HCV-related hepatocellular carcinoma following 29 unsuccessful treatments with extensive conventional therapy: A case report. World Journal of Surgical Oncology 2012, 10□144.
- 33 - 2011.08.24
- Todoroki T, Kondo T, Sugahara S, Morishita Y, Mori K, Ohno T. : Long-term survivor of relapsed MFH on the thigh treated with autologous formalin-fixed tumor vaccine (AFTV) combined with limb-sparing surgery and radiotherapy.World J Surg Oncol. 2011 Aug 24;9:96. doi: 10.1186/1477-7819-9-96.
- 32 - 2011.08.11
- Muragaki Y, Maruyama T, Iseki H, Tanaka M, Shinohara C, Takakura K, Tsuboi K, Yamamoto T, Matsumura A, Matsutani M, Karasawa K, Shimada K, Yamaguchi N, Nakazato Y, Sato K, Uemae Y, Ohno T, Okada Y, Hori T. : Phase I / IIa Trial of Autologous Formalin-fixed Tumor Vaccine Concomitant with Fractionated Radiotherapy for Initially-Diagnosed Glioblastoma.J Neurosurg. 2011 Aug;115(2):248-55. doi: 10.3171/2011.4.JNS10377. Epub 2011 May 13.
- 31 - 2011.04.25
- Sakamoto N, Ishikawa E, Yamamoto T, Satomi K, Nakai K, Sato M, Enomoto T, Morishita Y, Takano S, Ohno T, Tsuboi K, Matsumura A. : Pathological Changes After Autologous Formalin-Fixed Tumor Vaccine Therapy Combined With Temozolomide for Glioblastoma -Three Case Reports-Neurol Med Chir (Tokyo). 2011;51(4):319-25.
- 30 - 2007.12.31
- Harada H , Goto Y , Ohno T , Suzu S , Okada S . Proliferative activation up-regulates expression of CD4 and HIV-1 co-receptors on NK cells and induces their infection with HIV-1. Eur. J. Immunol., (2007), 37, 2184-2155.
- 29 - 2007.05.22
- Ishikawa, Eiichi; Tsuboi, Koji; Yamamoto, Tetsuya; Muroi, Ai; Enomoto, Takao; Takano, Shingo; Matsumura, Akira; Ohno, Tadao: Clinical trial of autologous formalin-fixed tumor vaccine for glioblastoma multiforme patients. Cancer Sci., 98(8):1226-1233, 2007

- 28 - 2006.01.07
- Tsurushima H, Yoshii Y, Leong KW, Ohno T.: Targeted tumor cell death induced by autologous tumor-Specific T lymphocyte recognition of wild-type p53-derived peptides. J Neurooncol. 2005 Jul 30; [Epub ahead of print]
- 27 - 2005.02.26
- Ghosh, M., Koike, N., Tsunoda, S., Hirano, T., Kaul, S., Kashiwagi, H., Kawamoto, T., Ohkohchi, N., Saijo, K., Ohno, T., Miwa, M., and Todoroki, T.: Characterization and genetic analysis in the newly established human bile duct cancer cell lines. Int. J.Int J Oncol. 2005 Feb;26(2):449-56.
- 26 - 2004.12.11
- Kawai K, Saijo K, Oikawa T, Ohno T, Akaza H.: Enhancement of T cell proliferative response against autologous cancer cells of a metasatic renal cell carcinoma patient after unexplained regression. Int J Urol. Dec;11(12):1130-2, 2004.
- 25 - 2004.08.01
- Ishikawa, E., Tsuboi, K., Saijo, K., Takano, S., and Ohno, T.: X-irradiation to human malignant glioma cells enhances the cytotoxicity of autologous killer lymphocytes under specific conditions. Int. J. Radiation Oncology Biol. Phys. 59: 1505-1512, 2004
- 24 - 2004.07.03
- Kushida, S., Peng, B. G., Uchimura, E., Kuang, M., Huang, L., Miwa, M., and Ohno, T.: A tumor vaccine of fixed tumor fragments in a controlled-release vehicle with cytokines for therapy of hepatoma in mice. Digestive and Liver Disease, 36: 478-485, 2004.
- 23 - 2004.06.05
- Ishikawa, E., Tsuboi, K., Saijo, K.,Harada, H., Takano, S., Nose, T., Ohno, T.: Autologous Natural Killer Cell Therapy for Human Recurrent Malignat Glioma. Anticancer Research. 24: 1861-1872, 2004.
- 22 - 2004.05.24
- Mila Ghosh, Naoto Koike, Go Yanagimoto, Shin-ichi Tsunoda, Sunil Kaul, Takashi Hirano, Fabian Emura, Hironobu Kashiwagi, Toru Kawamoto, Nobuhiro Ohkohchi, Kaoru Saijo, Tadao Ohno, Masanao Miwa, and Takeshi Todoroki*: Establishment and characterization of unique human gallbladder cancer cell lines.Int J Oncol. 2004 May;24(5):1189-96.
- 21 - 2004.05.06
- Harada, H., Watanabe, S., Saijo, K., Ishiwata, I., and Ohno, T.: A Wilms tumor cell line, HFWT, can greatly stimulate proliferation of CD56+ human natural killer cells and their novel precursors in blood mononuclear cells. Exp. Hematol. 32: 614-621, 2004.
- 20 - 2004.05.01
- Kuang M, Peng BG, Lu MD, Liang LJ, Huang JF, He Q, Hua YP, Totsuka S, Liu SQ, Leong KW, Ohno T: Phase II Randomized Trial of Autologous Formalin-Fixed Tumor Vaccine for Postsurgical Recurrence of Hepatocellular Carcinoma.Clin Cancer Res. 2004 Mar 1;10(5):1574-9.
- 19 - 2004.03.01
- Harada, H., Saijo, K., Ishiwata, I., and Ohno, T.: A GFP-transfected HFWT cell line, GHINK-1, as a novel target for non-RI activated natural killer cytotoxicity assay. Human Cell, 17: 43-48, 2004.

- 18 - 2004.01.09
- Eiichi Ishikawa , Koji Tsuboi , Shingo Takano , Eiji Uchimura , Tadao Nose, and Tadao Ohno*: Intratumoral injection of IL-2-activated NK cells enhances the antitumor effect of an intradermally injected paraformaldehyde-fixed tumor vaccine in a rat intracr.Cancer Sci. 2004 Jan;95(1):98-103.
- 17 - 2003.11.23
- Fabian Emura, Hiroshi Kamma, Mila Ghosh, Naoto Koike, Toru Kawamoto, Kaoru Saijo, Tadao Ohno, Nobuhiro Ohkohchi, and Takeshi Todoroki*: Establishment and characterization of novel xenograft models of human biliary tract carcinomas. Int J Oncol. 2003 Nov;23(5):1293-300.
- 16 - 2003.08.15
- Koji Tsuboi, Kaoru Saijo, Eiichi Ishikawa, Hideo Tsurushima, Shingo Takano, Yukio Morishita and Tadao Ohno: Effects of Local Injection of ex Vivo Expanded Autologous Tumor-specific T Lymphocytes in Cases with Recurrent Malignant Gliomas. Clin Cancer Res 9:3294-3302, 2003.
- 15 - 2002.04.06
- Peng, B. G., Liu, S. Q., Kuang, M., He, Q., Totsuka, S., Huang, L., Huang, J., Lu, M-D., Liang, L-J., Leong, K. W., and Ohno, T.: Autologous fixed tumor vaccine: A formulation with cytokine-micro-particles for protective immunity against recurrence of human hepatocellular carcinoma.Jpn J Cancer Res. 2002 Apr;93(4):363-8.
- 14 - 2002.03.09
- Harada, H., Saijo, K., Watanabe, S., Tsuboi, K., Nose, T., Ishiwata, I., Ohno, T.*: Selective expansion of human natural killer cells from peripheral blood mononuclear cells by the cell line, HFWT. Jpn. J. Cancer Res. 93: 313-9, 2002.
- 13 - 2001.06.03
- Masters, J. R., Thomson, J. A., Daly-Burns, B., Reid, Y. A., Dirks, W. G., Packer, P., Toji, L. H., Ohno, T., Tanabe, H., Arlett, C. F., Kelland, L. R., Harrison, M., Virmani, A., Ward, T. H., Ayres, K. L., Debenham, P. G.: Short tandem repeat profilingprovides an international reference standard for human cell lines.Proc Natl Acad Sci U S A. 2001 Jul 3;98(14):8012-7. Epub 2001 Jun 19.
- 12 - 2000.06.01
- Kim, C. H., Todoroki, T., Matsumura, M., and Ohno, T.: Eligibility of antigenic-peptide pre-loaded and fixed adhesive peripheral blood cells for induction of cytotoxic T lymphocytes for cancer patients with elevated serum CEA levels. J. Cancer Res. Clin.J Cancer Res Clin Oncol. 2000 Jul;126(7):383-90.
- 11 - 1999.05.09
- Tsurushima, H., Liu, S. Q., Tuboi, K., Matsumura, A., Yoshii, Y., Nose, T., Saijo, K. and Ohno, T.*: Reduction of end-stage malignant glioma by injection with autologous cytotoxic T lymphocytes. Jpn. J. Cancer Res.., 9, 536-545, 1999.
- 10 - 1999.05.05
- Saijo Y, Hong X, Tanaka M, Tazawa R, Liu SQ, Saijo K, Ohno T, Koike K, Ohkuda K, Satoh K, Nukiwa T. : Autologous high-killing cytotoxic T lymphocytes against human lung cancer are induced using interleukin (IL)-1beta, IL-2, IL-4, and IL-6: possible involvement of dendritic cells.Clin Cancer Res. 1999 May;5(5):1203-9.
- 9 - 1998.11.08
- Liu, S. Q., Kawai, K., Shiraiwa, H., Hayashi, H. Akaza, H., Hashizaki, K., Shiba, R., Saijo, K., Ohno, T.: High rate of induction of human autologous cytotoxic T lymphocytes against renal carcino-ma cells cultured with an interleukin cocktail. Jpn. J. Can.Jpn J Cancer Res. 1998 Nov;89(11):1195-201.

- 8 - 1998.10.19
- Kohyama, M., Saijo, K., Hayashida, M., Yasugi, T., Kurimoto, M., and Ohno, T.*: Direct activation of human CD8+ cytotoxic T lymphocytes by interelukin-18. Jpn. J. Cancer Res., 89: 1041-1046, 1998.
- 7 - 1998.10.04
- Kim, C., Matsumura, M., Saijo, K., Ohno, T.*: In vitro induction of HLA-A2402-restricted and carcinoembryonic-antigen-specific cytotoxic T lymphocytes on fixed autologous peripheral blood cells. Cancer Immunol. Immunother., 47: 90-96, 1998.
- 6 - 1998.03.26
- Horiuchi, K., Tsurushima, H., Kim, B. S., Liu, S. Q., Saijo, K., Saijo, Y., Nukiwa, T., Nomura, N., Matsumura, M., Ohno, T.*: Expansion of human autologous cytotoxic T lymphocytes on fixed target tumor cells. Cytotechnology. 1998 Mar;26(2):119-24. doi: 10.1023/A:1007903614475.
- 5 - 1996.12.02
- Liu, S. Q., Shiraiwa, H., Kawai, K., Hayashi, H., Akaza, H., Kim, B. S., Oki, A., Nishida, M., Kubo, T., Hashizaki, K., Saijo, K. and Ohno, T.*: Tumor-specific autologous cytotoxic T lymphocytes from tissue sections. Nature Medicine, 2: 1283-1283, 1996.
- 4 - 1996.02.08
- Tsurushima, H., Liu, S. Q., Tsuboi, K., Yoshii, Y., Nose, T. and Ohno, T.*: Induction of human autologous cytotoxic T lymphocytes on minced tissues of the brain tumor, glioblastoma multiforme. J. Neurosurgery, 84, 258-263, 1996.
- 3 - 1995.03.01
- Liu, S. Q., Saijo, K., Todoroki, T., and Ohno, T.* : Induction of human autologous cytotoxic T lymphocytes on formalin-fixed and paraffin-embedded tumour sections. Nature Medicine, 1, 267-271, 1995.
- 2 - 1994.06.08
- Liu, S. Q., Shiba, R. Kim, B. S., Saijo, K. and Ohno, T.* : Long-term serum/plasma-free culture of human cytotoxic T lymphocytes induced from peripheral blood mononuclear cells. Cancer Immunol. Immunother., 39, 279-285, 1994.
- 1 - 1992.04.24
- Kawai, K., Sasaki, T., Saijo-Kurita, K., Akaza, H., Koiso, K., and Ohno, T.: Additive effects of antitumor drugs and lymphokine-activated killer cell cytotoxic activity in tumor cell killing determined by lactate-dehydrogenase assay. Cancer Immunol Immunother. 1992;35(4):225-9.

SUMMARIES OF PRESENTATIONS AND LECTURES AT MAJOR CONFERENCES

- 60 - 2021.11.08
- 大野忠夫：がんは切っても捨てるな、それが自分のがんと闘う武器になる！～その２～.　日本先制臨床医学会第4回学術大会, 東京, 2021.11.21
- 59 - 2020.09.01
- 石川栄一、村垣 善浩、宮崎　翼、松田真秀、高野晋吾、大野忠夫、松村　明：膠芽腫に対する腫瘍ワクチン療法の成績と、免疫チェックポイント阻害薬、M2マクロファージ阻害薬などの新規免疫療法の可能性.　第38回日本脳腫瘍病理学会, web開催2020.9.28-10.5, 2020
- 58 - 2020.01.08
- Fumito Kuranishi, Hiroshi Iwako, Yoji Uemae, Tadao Ohno：Improved prognosis of breast cancer patients after combined treatment including autologous formalin-fixed tumor vaccine (AFTV).
- 57 - 2018.11.08
- 大野忠夫：自家がんワクチン：がんは切っても捨てるな、それが自分のがんと闘う武器になる！　日本先制臨床医学会第2回学術大会, 東京, 2018.11.11
- 56 - 2018.01.08
- Muragaki Y, et al. Multicenter randomized placebo-controlled trial of autologous formalin-fixed tumor vaccine for newly-diagnosed glioblastomas. Society for NeuroOncology, Late Breaking Abstract, 2017.11.18, San Francisco.
- 55 - 2017.11.09
- 村垣善浩, 丸山隆志, 石川栄一, 新田雅之, 生田聡子, 坪井康次, 松村明, 中村英夫, 黒田順一郎, 阿部竜也, 籾井泰朋, 斎藤竜太, 冨永悌二, 田部井勇介, 鈴木一郎, 荒川芳輝, 宮本享, 松谷雅生, 唐澤克之, 中里洋一, 大野忠夫, 前林勝也, 山本哲哉：初発膠芽腫に対する自家腫瘍ワクチンのプラセボ対照ランダム化試験（AFTVac-brain）第IIb相結果報告、第14回がんワクチン療法研究会学術集会、佐賀、2017.11.04
- 54 - 2017.11.09
- 宮崎翼, 石川栄一, 松村明：グリオーマ幹細胞を用いた免疫抑制能の検討、第14回がんワクチン療法研究会学術集会、佐賀、2017.11.04

- 53 - 2017.11.09
- 朝日厚子, 上前洋二, 柏原剛, 三好立, 丸山隆志, 片岡達治, 岡田里香, 池田由佳, 大野忠夫：自家がんワクチンによる単独療法にて、完全緩解が得られた腎盂がん術後多発転移の1例、第14回がんワクチン療法研究会学術集会、佐賀、2017.11.04
- 52 - 2017.11.09
- 三好立, 片岡達治, 朝日厚子, 岡田里香, 丸山隆志, 上前洋二, 大野忠夫：自家がんワクチン療法と抗PD1抗体薬の併用で肝転移病巣の完全寛解をみた子宮小細胞がんの経過報告、第13回がんワクチン療法研究会学術集会、広島、2016.11.05
- 51 - 2017.11.07
- 善光純子, ゲレルチェルン・アリウンゲレル, 王禹滋, 王秀鵬, 十河友, 伊藤敦夫, 大野忠夫, 坪井康次：局所放射線と新規免疫アジュバント“メソポーラスシリカ”を融合したがん放射線免疫療法、第13回がんワクチン療法研究会学術集会、広島、2016.11.05
- 50 - 2017.11.07
- Tatsu Miyoshi, Tatsuji Kataoka, Atsukuko Asahi, Takashi Maruyama, Rika Okada, Yoji Uemae and Tadao Ohno：Response of liver-metastasized uterine cervical small cell carcinoma to autologous formalin-fixed tumor vaccine plus anti-PD-1 antibody：A case report、第12回がんワクチン療法研究会学術集会、千葉、2015.11.14
- 49 - 2017.11.07
- 善光純子, 鈴木健之, ゲレルチェルン・アリウンゲレル, 大野忠夫, 坪井康次：放射線照射による腫瘍抗原特異的免疫賦活とアブスコパル効果に対するインドメタシンの影響、第12回がんワクチン療法研究会学術集会、千葉、2015.11.14
- 48 - 2015.10.10
- 倉西文仁, 寿美裕介 , 小川喜輝, 大野忠夫, 上前洋二：自家癌ワクチン及び照射による乳がん骨転移の根絶、第53回日本癌治療学会、京都、2015.10.29
- 47 - 2014.11.22
- 坪井康次, 安部井誠人, 兵頭一之介, 奥村敏之, 櫻井英幸, 大野忠夫, 伊藤敦夫：再発進行肝臓がんに対する陽子線療法とCaITUMP局所投与の安全性と臨床成績、第11回がんワクチン療法研究会学術集会、東京、2014.11.22
- 46 - 2014.08.10
- 倉西文仁、小川尚之、小川喜輝、大野忠夫：乳癌骨転移のCR症例：自家がんワクチン併用放射線治療後の成功第2例目について、第52回日本癌治療学会、横浜、2014.08.21
- 45 - 2013.11.13
- 大野忠夫：症例蓄積から学んだ自家がんワクチンの適応、第10回がんワクチン療法研究会学術集会、東京、2013.11.09
- 44 - 2013.11.13
- 新田雅之、丸山隆志、村垣善浩 、石川栄一 、齋藤太一、生田聡子 、大野忠夫、伊関　洋 、岡田芳和：初発神経膠芽腫に対する自家腫瘍ワクチン治療による長期生存例の検討、第10回がんワクチン療法研究会、東京、2013.11.09

- 43 - 2013.11.13
- 丸山隆志、新田雅之、村垣善浩 、石川栄一 、齋藤太一、生田聡子 、大野忠夫 、伊関　洋 、岡田芳和：初発神経膠芽腫に対する放射線化学療法および自家腫瘍ワクチンを用いた多施設共同臨床試験の進行状況、第10回がんワクチン療法研究会、東京、2013.11.09
- 42 - 2013.10.24
- 倉西文仁、小川喜輝 、小川敬之 、大野忠夫：術後５年目にCRと判定された乳癌骨転移の１例、第51回日本癌治療学会、京都、2013.10.24
- 34 - 2011.11.19
- 倉西文仁、黒田義則、則行敏生、中原雅浩、福田敏勝、住谷大輔、山木　実、浜岡道則、田口和浩、高橋　元、山口恵美、大野忠夫：自家癌ワクチン投与前後のT-cell分画の変化と予後、：第8回がんワクチン療法研究会学術集会、東京、2011
- 33 - 2011.11.19
- 石川栄一1、山本哲哉1、中井　啓1、高野晋吾1、丸山隆志2、田中雅彦2、生田聡子2、橋本幸一3、原田義則3、上前洋二4、大野忠夫4、唐沢克之5、松谷雅生6、阿部竜也7、村垣善浩2、松村　明1、:膠芽腫患者に対する自家腫瘍ワクチンと放射線・化学療法を用いた臨床多施 設共同試験の経過報告
- 32 - 2011.11.19
- 悪性神経膠腫に対する自家腫瘍ワクチンを用いた免疫療法の治療成績、第8回がんワクチン療法研究会学術集会、2011
- 31 - 2011.06.16
- 丸山隆志1、村垣善浩2、石川栄一3、坪井康次4、伊関洋2、大野忠夫5、松村明4、岡田芳和1、:初発神経膠芽腫に対する自家腫瘍ワクチンを用いた免疫療法、第36回日本外科系連合学会学術集会　シンポジウム2　外科系各科におけるがん免疫療法、東京、2011.06.16
- 30 - 2011.04.06
- Fumito Kuranishi1, Yoshinori Kuroda1, Toshiyuki Noriyuki1, Masahiro Nakahara1, Minoru Yamaki1, Daisuke Sumitani1, Kiyomi Shimoda1, Asuka Tanaka1, Michinori Hamaoka1,Kazuhiro Taguchi1, Gen Takahashi 1 and Tadao Ohno2、:Increase of Th1/Treg ratio in peripheral blood of breast cancer、: American Association of Cancer Research, 102nd annual meeitng, 2011
- 29 - 2010.09.25
- 田口和浩、倉西文仁、高橋元、濱岡道則、田中飛鳥、下田清美、住谷大輔、山本実、福田敏勝、中原雅浩、則行敏生、黒田義則、大野忠夫*（JA尾道総合病院、*セルメディシン株式会社）、:右乳癌術後胸骨傍リンパ節再発に対して自家癌ワクチン療法と放射線療法を併用し完全寛解を得た1例、第７回日本乳癌学会中国四国地方会、2010.09.25、高知市
- 28 - 2010.01.17
- “轟　健1）、斉藤　保2）、山本祐二2）、文　由美2）、森　健作3）、佐藤　始広4）、大野忠夫5）

- 27 - 2009.10.31
- 村垣善浩 、丸山隆志 、伊関洋 、田中雅彦 、篠原千恵 、坪井康次、山本哲也、松村 明 、松谷雅生 、唐沢克之 、島田勝則 、山口直人 、中里洋一 、佐藤敬喜、上前洋二 、大野忠夫 、堀智勝、:初発膠芽腫に対する自家腫瘍ワクチン治療のphasel/IIa臨床研究,第6回がんワクチン療法研究会学術集会,2009.10.31,京都
- 26 - 2009.10.31
- 自家がんワクチン、放射線、RFAにてPR となった進行再発胃癌の一例:第6回がんワクチン療法研究会学術集会,2009
- 25 - 2009.05.12
- Yoshihiro Muragaki, Takashi Maruyama, Hiroshi Iseki, Kintomo Takakura, Masahiko Tanaka, Chie Shinohara, Koji Tsuboi, Tetsuya Yamamoto, Akira Matsumura, Masao Matsutani, Katsuyuki Karasawa, Tadao Ohno6, Tomokatsu Hori,:Phase I/IIa trial of fractionated radiotherapy, temozolomide, and autologous formalin-fixed tumor vaccine for newly diagnosed glioblastoma.,The 3rd Quadrennial Meeting of the World Federation of Neuro-Oncology, O028, 2009.5.12, Yokohama
- 24 - 2008.11.18
- 新津宏明、倉西文仁、大野忠夫、則行敏生、中原雅浩、福田利勝、石崎康代、岩子寛、藤国宣明、黒田義則：低用量抗がん剤併用下自家がんワクチン療法を施行した進行胃癌の一例、第21回日本バイオセラピィ学会、ワークショップ「がんワクチン療法」W8-4、東京
- 23 - 2008.05.09
- 岡山哲也、古倉聡、舟木準、足立聡子、服部武司、高木智久、半田修、内藤裕二、内村英次、大野忠夫、吉川敏一：癌ワクチン作成用の腫瘍組織のHsp70とワクチン効果増強についての検討、第94回日本消化器病学会、ポスターP299、福岡
- 22 - 2008.02.03
- 石川栄一、坪井康次、山本哲哉、高野晋吾、松村明、大野忠夫：多型膠芽腫に対する自家腫瘍ワクチンの臨床研究. 第17回茨城がん学会、水戸市
- 21 - 2007.06.28
- 岡山哲也、古倉聡、足立聡子、服部武司、高木智久、半田修、内藤裕二、吉田憲正、吉川敏一、松浦友子、仲根一樹、武田厚子、武田隆久、内村英次、大野忠夫：自家がんワクチンの基礎的検討と肝癌に対する自家がんワクチンの再 発抑制効果、第16回日本癌病態治療研究会、東京、優秀演題賞受賞
- 20 - 2007.06.02
- K. Tsuboi, E. Ishikawa, T. Yamamoto, S. Takano, A. Matsumura, T. Ohno;　A clinical trial of autologous formalin-fixed tumor vaccine (AFTV) for patients with glioblastoma multiforme. Am Soc Clin Oncol 2007, Chicago
- 19 - 2007.05.15
- 坪井 康次、石川 栄一、西條 薫、大野 忠夫、松村 明：悪性脳腫瘍に対する免疫細胞療法の有効性と問題点、第80回日本組織培養学会大会、シンポジウムS-2-5、大阪

- 18 - 2007.05.10
- 石川栄一: 悪性腫瘍に対する免疫療法の現状と今後. 第14回多地点合同メディカル・カンファレンス、笠間市
- 17 - 2006.11.04
- 中本安成、大野忠夫、内村英次、守護晴彦、金子周一:肝がん自家腫瘍ワクチン投与5症例の経過、第3回がんワクチン療法研究会、一般演題-2、東京
- 16 - 2006.10.20
- 倉西文仁, 黒田義則, 則行敏生, 中原雅浩, 福田敏勝、石崎康代, 川口康夫, 堀田龍一, 秋本悦志, 大野忠夫:Long lasting reduction of tumor markers in advanced lung and bile duct carcinoma patients treated with autologous formalin-fixed tumor vaccine、第44回日本癌治療学会総会、OS149-2、東京
- 15 - 2006.10.20
- 坪井康次、山本哲哉、高野晋吾、松村　明、石川栄一、大野忠夫:膠芽腫に対するホルマリン固定自家腫瘍ワクチン療法、第44回日本癌治療学会総会、OS130-6、東京
- 14 - 2006.07.21
- 石川栄一、坪井康次、松村明:悪性脳腫瘍に対する自家腫瘍ワクチン療法. The 21th Japan Neurosurgery English Forum、つくば市
- 13 - 2006.04.13
- 大野忠夫:免疫細胞療法およぼ生細胞を含まない「自家がんワクチン療法」、第2回癌治療への再生医療応用研究会、講演2、尼崎市
- 12 - 2006.04.05
- Kuranishi F, Kuroda Y, Noriyuki T, Nakahara M, Hamamoto M, Mizukami T, Shimomura M, Nanbu J, Hotta R, Ohno T:Long lasting reduction of tumor makers in advanced lung and bile duct carcinoma patients treated with autologous formalin-fixeed tumor vaccine. Proc Amer Assoc Cancer Res, 47: abstract 1422, 2006.
- 11 - 2006.01.29
- 山本哲哉、坪井康次、石川栄一、高野晋吾、松村明:膠芽腫に対する自家腫瘍ワクチン療法、第15回茨城がん学会、一般演題17、水戸市
- 10 - 2005.09.25
- 大野忠夫:がん免疫療法の革新児—自家がんワクチン、平成17年度日本生物工学会大会シンポジウム:生物工学バイオベンチャーサロン—奮闘するバイオベンチャー、つくば市、2005
- 9 - 2005.09.09
- T. Ohno: Autologous Formalin-fixed Tumor Vaccine for Supression of Cancer Recurrence, BAK-JBA Symposium at BioJapan 2005, Yokohama, Data-Book published by JBA, 2005.

- 8 - 2004.10.01
- 坪井康次、石川栄一、高野晋吾、松村明、大野忠夫：悪性神経膠腫術後再発に対する自家腫瘍ワクチン療法の経験、第63回日本癌学会学術総会記事、W-476(438)
- 7 - 2004.09.30
- 串田茂樹、膨宝崗、内村英次、三輪正直、大野忠夫：サイトカイン徐放性製剤に固定腫瘍断片を練り込んだ腫瘍ワクチンによるマウス肝癌に対する抗腫瘍効果、第63回日本癌学会学術総会記事、P-0763(305)
- 6 - 2004.09.05
- 坪井康次、高野晋吾、石川栄一、及川剛宏、河合弘二、今川重彦、赤座英之、大野忠夫、松村　明：悪性神経膠腫に対する自家NK細胞療法、第6回日本分子脳神経外科学会シンポジウム-2： 脳腫瘍に対する免疫療法、豊中市、2005.
- 5 - 2003.12.13
- 佐藤允之、坪井康次、石川栄一、高野晋吾、松村明、大野忠夫：悪性脳腫瘍再発例に対する自家腫瘍ワクチンの効果、第26回ニューロ・オンコロジィの会、東京（抄録：Neuro-Oncology、13(2):37-41, 2003.）
- 4 - 2003.11.24
- 大野忠夫、「自分の力で治すがん免疫療法–医療の最先端をゆく～自家がんワクチン～」、秋薬PRESS、21（平成15年11月号）：38-56, 2003.（講演全文）
- 3 - 2003.09.27
- 大野忠夫：自家がんワクチンによるヒト術後肝癌再発抑制効果：ランダマイズドスタディ中間報告 、第62回日本癌学会、名古屋
- 2 - 2003.07.01
- 大野忠夫：セルメディシン株式会社の事業、JBAバイオベンチャーフォーラム第８回シンポジウム、東京.（抄録： 会場配布。日本バイオテクノロジー協会）
- 1 - 2003.05.23
- 大野忠夫：養子免疫療法と自家がんワクチン療法について、日本組織培養学会第76回大会、東京.（抄録：Tissue Culture Res. Comm. 22:28-28, 2003.）

HISTORY

- 2001.07.03: Sermedecine Co., Ltd. was established. Headquarters: Ushiku City, Ibaraki Prefecture (until October 21, 2007)
- 2001.07.26: RIKEN obtained “RIKEN Venture” certification. A liaison office was established at the RIKEN Cell Development Bank in Tsukuba City. In parallel, it was also accredited as a “University of Tsukuba venture.”
- 2001.08.28: Capital increase through shareholder allocation
- 2001.10.27: Stock split (1:4)
- 2002.07.05: Introduced to the Ibaraki Venture Market
- 2002.11.22: Received funding from the Sumitomo Mitsui Banking Venture Development Fund (5 million yen)
  2002.11.24: CMI News No.1 published (renamed to Cell Medicine News starting from No.10)
  2003.01.15: Capital increase through third-party allocation
  2003.04.01: Tsukuba Laboratory established [Takanodai, Tsukuba City – Sanyo Electric Tsukuba Research Laboratory (later Tsukuba Venture Laboratory Park), Waseda University Nano-Process Research Center Yamazaki Laboratory]
  2004.06.15: Company name changed from “Selmedicine Co., Ltd.” to “Cell-Medicine Co., Ltd.”
  2006.03.17: Received the Encouragement Award in the Entrepreneur Category at the Japan Venture Award 2006, supported by the Organization for Small & Medium Enterprises and Regional Innovation, Japan
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- 2006.03.17: Received the Encouragement Award in the Entrepreneur Category at the Japan Venture Award 2006, supported by the Organization for Small & Medium Enterprises and Regional Innovation, Japan
- 2007.10.22: Relocated to the current Tsukuba Research Support Center. Head Office / Tsukuba Laboratory: Tsukuba City, Ibaraki Prefecture
- 2012.01.20: The treatment outcomes of 1,001 patients who received autologous cancer vaccine therapy were published on the website
- 2013.10.01: The cumulative number of patients receiving autologous cancer vaccine therapy reached 2,000
- 2013.10.01: A joint research base (Tsukuba University Hospital Laboratory) was established at the University of Tsukuba Hospital for the Tsukuba International Strategic Comprehensive Special Zone project: “Development of Autologous Cancer Vaccine for Brain Tumors”
- 2014.01.31: The “RIKEN Venture” accreditation period ended, transitioning to a RIKEN “originated venture.” Tsukuba-origin ventures continued to receive certification
- 2015.06.10: Received the 3rd Joyo Business Award – Encouragement Prize
- 2018.04.27: A cumulative total of 3,000 patients received autologous cancer vaccine therapy
- 2020.06.30: Regarding the autologous cancer vaccine, Cellm-001 (a brain tumor version) submitted a clinical trial notification to the PMDA for an investigator-initiated study: “A randomized controlled trial evaluating the efficacy of Cellm-001 for glioblastoma treatment.”
- 2020.07.31: Startup meeting held
- 2020.12.02: IRB approval was obtained at all 11 participating institutions for the investigator-initiated clinical study
- 2021.01.14: First patient enrollment in the investigator-initiated clinical trial

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