

Breast Cancer



Quick Read

Summary of Breast Cancer Case Reports

Across **11 patient cases** (ages 36–82), all with **advanced, recurrent, or metastatic breast cancer** where surgery, chemotherapy, radiotherapy, and targeted drugs had failed or were intolerable:

- **Treatment:** Allogeneic CIK (Cytokine-Induced Killer) cell therapy, derived from healthy donors.
- **Outcomes:**
 - Many patients achieved **complete remission** with disappearance of metastases in lungs, liver, bones, lymph nodes, and brain.
 - Others maintained **long-term stability (7–10+ years)** with no recurrence or progression.
 - Patients who had severe side effects from chemotherapy or could not undergo surgery experienced **rapid symptom relief, improved energy, appetite, and vitality**.
 - Some patients showed **systemic rejuvenation** (better skin, hair, and appearance, improved physical strength).
 - Even elderly patients (up to 82 years old) who refused conventional therapy achieved **complete remission** with only 2 courses of allogeneic CIK therapy.
 - Unique outcomes included **improvement of diabetes symptoms** in one patient's family member and **return of fertility** in another.

Key Benefits of Allogeneic Cell Therapy

- ✓ **Alternative when clinical options are exhausted** – Provided hope when surgery, radiation, chemotherapy, or targeted drugs had failed.
- ✓ **Higher efficacy with allogeneic cells** – Healthy donor immune cells are stronger, more active, and more effective than a patient's own compromised cells.
- ✓ **Non-invasive treatment** – Delivered via infusion, avoiding surgical trauma or toxic drug side effects.
- ✓ **Improved quality of life** – Relief of pain, fatigue, and depression; restored appetite, strength, and daily function.
- ✓ **Durable cancer control** – Prolonged remission, prevention of recurrence, and control of cancer spread.
- ✓ **Systemic benefits beyond cancer** – Observed rejuvenation, metabolic improvements (e.g., diabetes control), and enhanced vitality.

Case Report ONE (1): Remarkable Response to Allogeneic CIK Immunotherapy in a Patient with Recurrent and Metastatic Breast Cancer

Patient Profile:

Female, 36 years old, Hospitalization No. 35799

October 2006, patient underwent a modified radical mastectomy for left breast cancer at a local cancer hospital. Postoperatively, she received 4 cycles of TA chemotherapy.

June 13, 2007, a mass was found in the left supraclavicular region, and fine needle aspiration at an outside hospital indicated metastasis to the left supraclavicular lymph nodes.

June 18, 2007 admitted to our centre for treatment.

Diagnosis & Treatment History:

Pathological Diagnosis:

Poorly differentiated adenocarcinoma of the left breast, partly clear cell carcinoma, partly medullary carcinoma, with vascular invasion.

Immunohistochemistry results:

- ER (+)
- PR ($\pm$)
- C-ERBB-2 (+++)
- CA15-3 (++)

23 July 2007 PET/CT Examination Report

Diagnostic Impression:

- Extensive recurrence of tumor in the left chest wall.
- Diffuse metastases in both lungs, with bilateral pleural metastases and moderate pleural effusion.
- Multiple lymph node metastases in the bilateral supraclavicular regions, left axilla, bilateral hila, and mediastinum.
- Multiple bone metastases throughout the body.



Treatment Approach:

July 26, 2007, the patient received **the first—possibly the nationwide first—course of allogeneic CIK (Cytokine-Induced Killer) cell therapy** derived from a healthy donor.

July 27, 2007, the patient's mental state and physical strength had markedly improved. Coughing was significantly reduced and she was able to rest well.

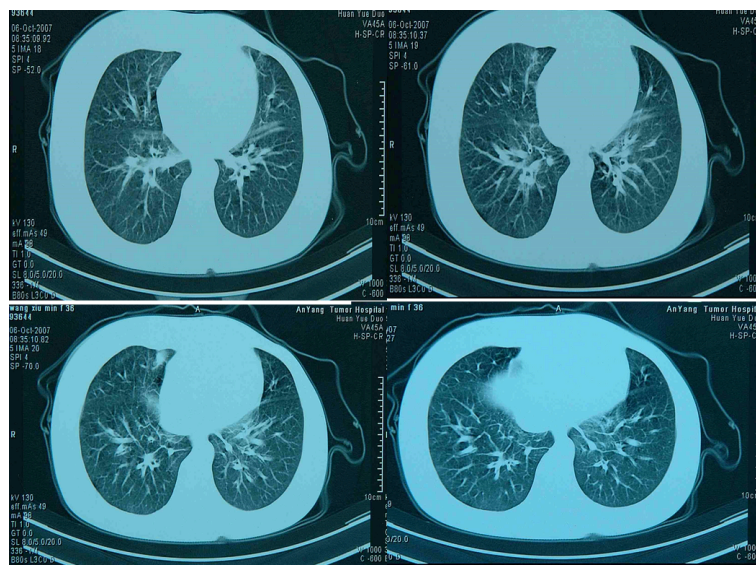
After completion of treatment, the patient responded remarkably: coughing resolved, sleep improved, appetite increased.

The patient was discharged in good condition at the end of July 2007.

Outcome:

Subsequent imaging demonstrated significant disease regression:

- All pulmonary and pleural metastases had disappeared.
- Mediastinal metastases had nearly completely resolved.
- The left chest wall tumor had largely disappeared, with markedly reduced metabolic activity, indicating strong therapeutic effect.
- Bilateral pleural effusions had completely resolved.
- Metastatic lesions in the supraclavicular, axillary, hilar, and mediastinal lymph nodes had essentially disappeared.



Conclusion

This case represents the **first documented use of allogeneic CIK cell therapy from a healthy donor** for recurrent and metastatic breast cancer. The patient exhibited **dramatic clinical and radiological remission**, with resolution of systemic metastases and substantial improvement in quality of life. This suggests that allogeneic CIK therapy may hold promising therapeutic potential for advanced, treatment-refractory malignancies.

Case Report TWO (2): Postoperative Recurrent and Metastatic Breast Cancer Treated with Long-Term Cellular Immunotherapy

Patient Information

- Age: 54 years (at recurrence)

Medical History

In **October 2007**, the patient underwent a **modified radical mastectomy of the left breast** for breast cancer. Postoperatively, she received adjuvant chemotherapy with **AC** (doxorubicin + cyclophosphamide) and **FEC** (5-fluorouracil + epirubicin + cyclophosphamide), four cycles each.

In **June 2008**, recurrence was detected with **left supraclavicular lymph node metastasis**. She was treated with eight cycles of chemotherapy (novelbine + capecitabine, four cycles each) and **nine courses of trastuzumab**.

In **November 2008**, disease progression was noted with **right supraclavicular lymph node metastasis**, for which she underwent local radiotherapy (6 MV X-ray, DT 50 Gy/25 fractions/5 weeks).

In **February 2009**, follow-up imaging suggested **pulmonary metastases**. Given that within less than two years she had undergone repeated surgery, chemotherapy, radiotherapy, and targeted therapy, her hematologic status was poor and her overall physical condition weakened.

Conventional treatment options were no longer feasible.

Treatment Approach:

Cellular Immunotherapy

In **August 2009**, the patient began **CIK cellular (biological) therapy**.

- After two years, suspicious metastatic lesions had disappeared.
- Her condition stabilized, physical strength improved, and she was able to resume normal life and work.

Long-Term Follow-Up

- **September 2016 (7 years after starting cellular therapy):** With annual cell therapy courses, follow-up showed complete disappearance of all detectable tumor lesions. The patient's overall constitution markedly improved.
- **April 2019 (10 years after cellular therapy):** The patient remained disease-free. In addition, she demonstrated signs of systemic rejuvenation: her skin became fairer and more supple, her hair thickened and darkened, and her overall appearance looked younger by approximately a decade compared with her pre-treatment state.



Outcome and Significance

This case highlights a patient with postoperative recurrent and metastatic breast cancer who, after exhausting conventional treatment options, achieved long-term complete remission and systemic rejuvenation through sustained **cellular immunotherapy**.

The clinical course suggests that long-term cellular therapy may not only control disease progression but also improve overall vitality and reverse aspects of aging, thereby offering a potential therapeutic avenue for patients with advanced, treatment-refractory breast cancer.

Case Report THREE (3): Long-Term Survival in a Patient with Postoperative Breast Cancer and Widespread Metastases Treated with Allogeneic CIK Immunotherapy

Patient Information

- Age: 60 years (at reporting)

Medical History

The patient was diagnosed with **invasive ductal carcinoma of the left breast** and underwent a radical mastectomy in **January 2002**. Pathology confirmed infiltrating ductal carcinoma.

In **2005**, CT revealed **bilateral pulmonary metastases**, and she received systemic chemotherapy at a local hospital.

In **September 2007**, the patient developed **back pain**. CT showed **thoracic vertebral (T4–5) metastases**. She underwent surgical resection of the metastatic lesion followed by radiotherapy, which alleviated her symptoms.

In **March 2011**, liver metastases were detected on follow-up. The patient received chemotherapy and radiotherapy.

Treatment Approach:

Introduction of CIK Immunotherapy

In **October 2011**, she received her **first allogeneic CIK (Cytokine-Induced Killer) cell therapy** from a healthy donor, after which her condition improved and she was discharged.

In **2012**, she underwent further radiotherapy (26 sessions) for hepatic and thoracic vertebral metastatic lesions.

In **February 2013**, follow-up showed **progression of hepatic metastases**. She received four cycles of systemic chemotherapy. Post-chemotherapy, she developed **hemoptysis, dyspnea, and shortness of breath on minimal exertion (within 10 meters)**, attributed to toxicity from prior radio-chemotherapy. Symptomatic treatment was administered with poor effect.

Course of Cellular Therapy

- **July 2013 (2nd CIK therapy):** Hemoptysis ceased; disease stabilized.
- **January 2014 (3rd CIK therapy):** Dyspnea markedly improved.
- **June 2014 (4th CIK therapy):** Disease remained stable; a pigeon-egg-sized mass in the right shoulder decreased in size.
- **October 2014:** Right shoulder mass disappeared; numbness in the lateral left foot improved; disease remained stable.
- **March 2015 (5th CIK therapy):** Marked improvement in physical strength and energy. Dyspnea with exertion significantly improved. No other major discomfort.

Long-Term Follow-Up (2011–2015)

Over a **five-year period of five courses of CIK therapy**, the patient's disease remained stable with gradual improvement in symptoms and quality of life.

Now, **nearly 10 years since initiation of CIK therapy**, the patient has maintained long-term stability, suggesting durable efficacy. Ongoing follow-up continues to monitor sustained benefit.

Outcome and Significance

This case demonstrates that a patient with **postoperative breast cancer and widespread systemic metastases (Stage IV, 10 years)** can achieve **remarkable long-term survival and stable disease** through repeated courses of **allogeneic CIK immunotherapy**, even after failure and toxicity of conventional treatments.

The findings suggest that cellular immunotherapy may offer a **promising therapeutic option for advanced, refractory breast cancer**, with potential not only to control disease but also to improve long-term quality of life.



Case Report FOUR (4): Long-Term Complete Remission of Recurrent and Metastatic Breast Cancer Following Allogeneic CIK Therapy

Patient Information

- Age at diagnosis: 68 years
- Nationality: United Arab Emirates

Initial Presentation

- **Date:** January 2007
- **Findings:** Left breast mass ~4 cm
- **Pathology:** Invasive ductal carcinoma, ER(-), PR(-), C-ERB2 (3+)
- **Initial treatment:**
 - Paclitaxel + trastuzumab (6 cycles) → significant tumor shrinkage
 - June 2007: Radical mastectomy, followed by paclitaxel chemotherapy + trastuzumab
 - August 2007: Adjuvant local radiotherapy
 - Continued on trastuzumab maintenance

Disease Progression

- **April 2008:** Local subcutaneous nodules excised → confirmed metastatic disease.
 - Treated with NP chemotherapy (2 cycles).
- Over the next 2.5 years: Despite surgery, chemotherapy, radiotherapy, and targeted therapy, she developed multiple recurrent systemic metastases.

Treatment Approach:

Cellular Immunotherapy

- **March 2010:** First allogeneic (healthy donor) CIK therapy.
- **July 2010:** Second CIK infusion → remarkable improvement:
 - Increased energy, improved physical strength, resolution of fatigue.
 - Imaging showed disappearance of metastatic lesions.
 - Tumor markers normalized.

Long-Term Treatment & Follow-Up

- From **January 2011 to April 2015**, she received **1–2 courses of CIK therapy per year**.
- **June 2015:** PET/CT and tumor markers completely normal.
- **Clinical status:** No discomfort, full return to normal life.
- **Outcome:** To date, the patient has remained in complete remission for more than **10 years post-CIK therapy**, with no evidence of recurrence.

Conclusion

This case demonstrates the potential of **allogeneic CIK therapy** to achieve **long-term complete remission** in advanced HER2-positive breast cancer, even after failure of conventional modalities (surgery, chemotherapy, radiotherapy, targeted therapy). The durability of response—sustained for over a decade—suggests that cellular immunotherapy may provide a **curative option** for select patients with refractory metastatic disease.



Case Report FIVE (5): Long-Term Remission of Recurrent Breast Cancer After CIK Immunotherapy

Patient Information

- Age: 66 years

Clinical History

- **2001:** Underwent radical mastectomy of the right breast for invasive ductal carcinoma, followed by endocrine therapy.
- **June 2010:** Local recurrence of right breast cancer detected. Treated with 4 cycles of docetaxel + cisplatin chemotherapy.

Treatment outcome: Tumor control was unsatisfactory. The patient experienced severe side effects, including fatigue, hair loss, tinnitus, chest tightness, back pain, nausea, vomiting, anorexia, and significant weight loss (10 kg in 6 months). She also suffered headaches, dizziness, emotional depression, and loss of confidence in life. Chemotherapy was discontinued due to poor tolerance and incomplete tumor response.

Treatment Approach:

Cell-Based Immunotherapy

- **January 2012:** Initiated **allogeneic CIK (Cytokine-Induced Killer) cell therapy**. After the first cycle, her mental state improved significantly; fatigue, tinnitus, and chest tightness were relieved; nausea and vomiting disappeared; appetite increased to near-normal.
- **April 2012:** After the second cycle, further improvement was observed. The patient regained normal appetite, gained 5 kg in 3 months, and became physically stronger. She regained independence in daily living, resumed social activities, and regained confidence in recovery.

Follow-Up and Outcome

- **2013:** One year after CIK therapy, the patient maintained good mental health, returned to normal daily life, and resumed part-time work.
- **2012–2020:** Over the following 8 years, the tumor disappeared, and the disease remained stable without evidence of recurrence or metastasis.
- **Current Status:** The patient's physical condition and vitality are superior to peers of the same age, appearing younger and healthier both physically and mentally.

Conclusion

In this case, a patient with recurrent breast cancer who had poor tolerance to chemotherapy achieved **long-term complete remission** after allogeneic CIK immunotherapy. With stable disease for more than 8 years and no recurrence, this case demonstrates the potential of cellular immunotherapy to not only control tumor progression but also restore overall physical and psychological well-being.

Case Report SIX (6): Long-Term Complete Remission of Metastatic Breast Cancer with Allogeneic CIK Cell Immunotherapy After Chemotherapy Intolerance

Patient Information

- **Age:** 59 years (at time of recurrence in 2012)

Diagnosis: Metastatic breast cancer (axillary lymph node metastasis) following postoperative recurrence of right breast invasive ductal carcinoma.

Clinical History

- **2001:** Diagnosed with right breast invasive ductal carcinoma. Received neoadjuvant chemotherapy followed by surgical resection and five cycles of postoperative adjuvant chemotherapy.
- **December 2012:** Discovered metastasis to the left axillary lymph nodes. Commenced chemotherapeutic treatment.
- **During First Chemotherapy Cycle:** Developed severe Grade III diarrhea, 虚弱 (weakness), paroxysmal coughing, chest pain, palpitations, dry mouth, gastric distension (bloating), soreness in both knee joints, and symptoms of mental depression and low mood. The severe adverse reactions rendered further chemotherapy intolerable and treatment was discontinued.

Treatment Approach:

Cell-Based Immunotherapy

- **January 2013:** Initiated first course of allogeneic CIK (Cytokine-Induced Killer) cell therapy from healthy donors.
- **Post-First Course:** The patient's mental state improved, and diarrhea alleviated. Symptoms including coughing, chest pain, palpitations, dry mouth, and gastric distension were significantly reduced.
- **By October 2013:** The aforementioned symptoms had largely resolved and returned to normal. The patient received additional maintenance courses of allogeneic CIK cell therapy during this period.

Follow-Up and Outcomes

- **August 2014:** Re-examination showed complete disappearance of the left axillary lymph node metastasis. No other abnormalities were detected.
- **Long-Term Follow-Up (7+ years):** The patient remains in excellent condition with high spirits, improved physical constitution, and a vibrant appearance. She reports a passionate outlook on life, actively participates in social activities, and has fully resumed normal daily life and work.

Conclusion

This patient with metastatic breast cancer recurrence became severely intolerant to standard chemotherapy, necessitating treatment cessation. Following therapy with allogeneic CIK cells, she achieved a complete metabolic and radiological remission with resolution of all symptoms. This response has been sustained for over seven years, accompanied by an excellent quality of life. This

case demonstrates the potential of allogeneic CIK immunotherapy as a potent and tolerable treatment strategy for achieving long-term remission in patients with metastatic breast cancer who cannot tolerate conventional chemotherapy.

Case Report SEVEN (7): Non-Invasive Management of Advanced Breast Cancer in an Elderly Patient with Allogeneic CIK Cell Immunotherapy

Patient Information

- **Age:** 82 years (at time of diagnosis in 2010)

Diagnosis: Multifocal breast cancer with bone metastases.

Clinical History

- **November 2010:** Diagnosed with multifocal breast cancer and concomitant bone metastases.
- **Patient Decision:** The patient independently decided against standard surgical intervention and chemotherapy.
- **Seeking Alternatives:** Upon learning about our cell-based immunotherapy protocols, she travelled to our country for consultation and treatment.

Treatment Approach:

Cell-Based Immunotherapy

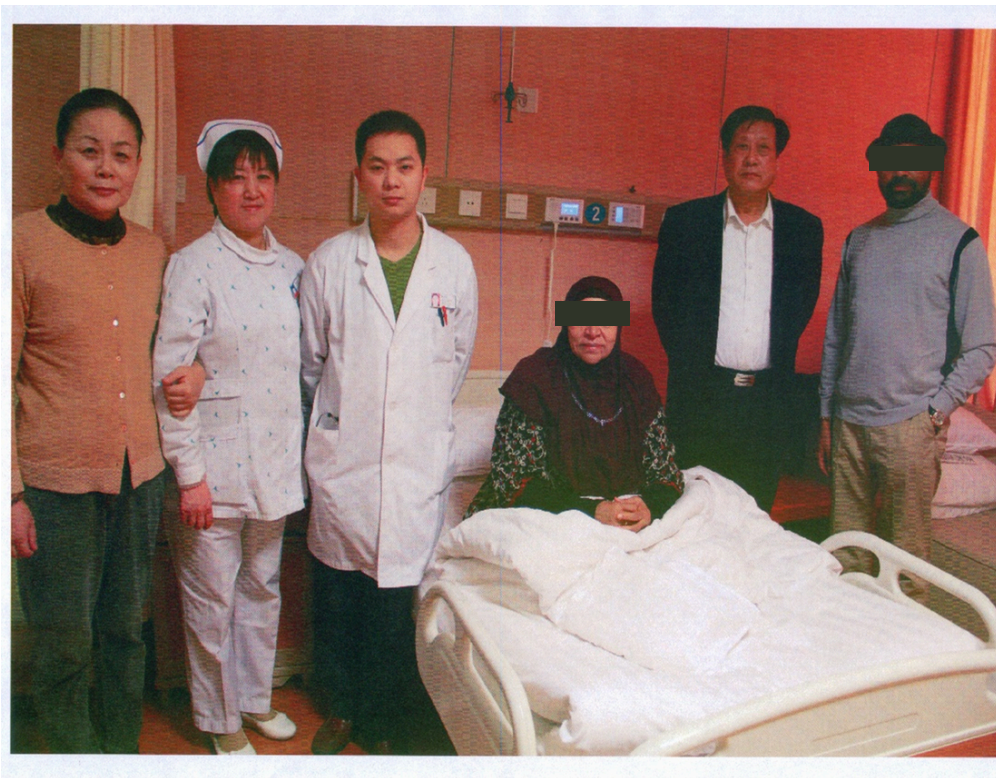
- **Treatment Initiation:** The patient elected to undergo allogeneic Cytokine-Induced Killer (CIK) cell therapy derived from healthy donors.
- **Treatment Regimen:** Received two courses of allogeneic CIK cell immunotherapy.
- **Outcome:** Following the two treatment courses, follow-up imaging revealed complete resolution of the tumors. The patient's health returned to normal, achieving a complete remission.

Ancillary Observations

- **Son's Experience:** The patient's son accompanied her and concurrently underwent a course of biological cell therapy for health maintenance. A notable, unexpected outcome was the complete resolution of his pre-existing diabetic symptoms.
- **Daughter's Experience:** The following year, the patient's daughter also traveled to receive cellular health therapy. Subsequently, her previous infertility was successfully treated, and she conceived and gave birth to a healthy child.

Conclusion

This elderly patient with advanced, metastatic breast cancer, who declined conventional surgery and chemotherapy, achieved a complete remission following a brief course of allogeneic CIK cell immunotherapy. This case highlights the potential of this immunotherapeutic strategy as a potent and well-tolerated primary intervention for advanced cancer in elderly patients unsuitable for standard treatments. The ancillary benefits observed in family members, while anecdotal, suggest a broader potential role for cell therapies in managing non-oncological conditions such as metabolic and reproductive disorders, warranting further scientific investigation.



Case Report EIGHT (8): Long-Term Disease-Free Survival in Postoperative Breast Cancer Maintained with Allogeneic CIK Cell Therapy

Patient Information

- **Age:** 58 years (at the time of surgery in 2009)
- **Occupation:** Chief Physician at a children's hospital in Shenyang

Diagnosis: Postoperative status of breast cancer.

Clinical History

- **2009:** Underwent surgical resection for breast cancer, followed by adjuvant chemotherapy.
- **Post-Chemotherapy:** Elected to receive maintenance therapy with allogeneic CIK (Cytokine-Induced Killer) cells from healthy donors.

Treatment and Follow-Up

- **Therapy Duration:** Has received maintenance CIK cell therapy for over 10 years since initial treatment.
- **Long-Term Outcome:** Annual physical examinations and imaging studies over the past decade have shown no evidence of recurrence or metastasis. All results remain within normal limits.
- **Comparative Anecdote:** The patient reports that five other patients who underwent breast cancer surgery in the same hospital room in the same year had less favorable outcomes: two passed away within three years, and the other three experienced recurrence and metastasis. All were lost to follow-up after five years.

Patient-Reported Outcomes and Current Status

- The patient attributes her long-term disease-free survival to the maintenance allogeneic CIK cell therapy.
- **Current Status (10+ years post-surgery):** Recent check-ups confirm all indicators are normal. The patient also reports significant subjective improvements in overall well-being, including:
 - Improved skin complexion (lightening).
 - Reduction in skin wrinkles.
 - Increased energy levels.
 - Enhanced physical strength.
- She continues to perform her demanding clinical work with ease and maintains a positive and optimistic outlook.

Conclusion

This patient with postoperative breast cancer has remained disease-free for over a decade following initial chemotherapy and long-term maintenance therapy with allogeneic CIK cells. Her

sustained remission contrasts sharply with the reported outcomes of contemporaneous patients who received standard care alone. This case suggests that allogeneic CIK cell maintenance therapy may contribute to preventing recurrence and metastasis in postoperative breast cancer patients, potentially leading to long-term disease-free survival and improved overall quality of life.

Case Report NINE (9): Remarkable Symptomatic and Metabolic Improvement in Postoperative Breast Cancer with Pulmonary and Brain Metastases Following Biotherapy

Patient Information

- **Age:** 46 years (at the time of brain metastasis treatment in 2007)

Diagnosis: Recurrent metastatic breast cancer (lung and brain metastases) following right breast invasive ductal carcinoma.

Clinical History

- **2002:** Diagnosed with right breast invasive ductal carcinoma. Underwent surgical resection, followed by conventional chemotherapy and radiotherapy (The First Affiliated Hospital of Hebei University).
- **2006:** Underwent surgical resection for pulmonary metastases (Cancer Hospital, Chinese Academy of Medical Sciences, Beijing), followed by four cycles of chemotherapy.
- **May 2007:** Underwent Gamma Knife radiosurgery for brain metastases (Beijing Air Force General Hospital).

Cell-Based Immunotherapy and Outcomes

- **Initiation:** Commenced allogeneic CIK cell therapy on October 13, 2007.
- **Symptomatic Improvement:** Following biotherapy, the patient reported significant overall improvement:
 - **Neurological/Psychological:** Marked improvement in spirit and mood. Resolution of severe headaches and cranial distension. Complete disappearance of visual hallucinations (previously saw ants in water). Vision improved significantly.
 - **Physical:** Dramatic increase in physical stamina and strength. Reported being able to walk for 2.5 hours without fatigue and climb five flights of stairs in one breath without feeling tired.
 - **Sleep:** Sleep quality improved dramatically, from 4–5 hours per night to 7–9 hours of good sleep.
- **Metabolic Improvement (Unexpected Benefit):**
 - **Prior to Biotherapy:** Required 18 units of insulin daily (10u morning, 8u evening) to maintain blood glucose levels.
 - **After Biotherapy:** Insulin requirement drastically reduced to a total of 4 units per day with good glycemic control.
 - **Long-term Metabolic Outcome:** Within three months, insulin was discontinued completely, and blood glucose levels remained normal without medication.

Conclusion

This patient with a complex history of recurrent and metastatic breast cancer (lung and brain) experienced significant and multi-faceted improvement in quality of life following biotherapy. The treatment was associated with the resolution of neurological symptoms (headaches, hallucinations), a dramatic boost in physical capacity and sleep quality, and the complete

normalization of glucose metabolism, allowing for the cessation of insulin therapy. This case suggests that cell-based immunotherapy may offer significant palliative benefits and potentially modulate systemic metabolic conditions in addition to targeting cancer.

Case Report TEN (10): Symptomatic and Biochemical Improvement in Metastatic Breast Cancer with Multisystem Relapse Following Biotherapy

Patient Information

- **Age:** 48 years

Diagnosis: Recurrent metastatic breast cancer (local recurrence and extensive bone metastases) following left breast invasive ductal carcinoma.

Clinical History and Treatment

- **October 2008:** Diagnosed with left breast invasive ductal carcinoma. Underwent radical mastectomy, followed by 8 cycles of conventional chemotherapy and Trastuzumab (Herceptin).
- **July 23, 2009:** Disease recurrence. PET scan confirmed metastasis to the right ilium. Treated with radiotherapy, Zoledronic acid, and Tamoxifen.
- **January 6, 2010:** Significant rise in tumor markers (CEA: 608 ng/mL, CA153: >300 U/mL). Continued with chemotherapy.
- **July 23, 2010:** Disease progression. Symptoms included worsened generalized pain and difficulty walking. The patient reported a weight loss of 15 kg and a height reduction of 20 cm over six months. PET scan confirmed local tumor recurrence in the left breast and extensive metastases throughout the skeletal system.

Cell-Based Immunotherapy and Outcomes

- **Initiation:** Commenced allogeneic CIK immune cell biotherapy on August 21, 2010.
- **Regimen:** Underwent two courses of treatment.
- **Outcome:** Following two treatment courses, the patient demonstrated significant improvement:
 - **Symptomatic Relief:** Marked reduction in generalized pain and other clinical signs and symptoms.
 - **Functional Improvement:** Enhanced mobility (reduced difficulty in walking).
 - **Biochemical Response:** Notable improvement in all relevant laboratory and tumor markers.

Conclusion

This patient with heavily pre-treated, multisystem metastatic breast cancer, who had progressed on multiple lines of therapy including surgery, chemotherapy, radiotherapy, targeted therapy (Trastuzumab), and endocrine therapy, achieved **significant symptomatic and biochemical improvement following two courses of allogeneic CIK immune cell biotherapy**. This case highlights the potential role of such immunotherapy as a salvage treatment option for providing palliative benefit and potentially stabilizing disease in patients with advanced, treatment-refractory metastatic breast cancer.

Case Report ELEVEN (11): Remarkable Functional Recovery and Disease Control in Advanced Metastatic Breast Cancer Following Immunotherapy

Patient Information

- **Age:** 46 years (at time of metastasis diagnosis in 2021)

Diagnosis: Advanced metastatic breast cancer (liver, cervical, and thoracic vertebral metastases) with postoperative high paraplegia.

Clinical History and Treatment

- **September 26, 2019:** Underwent surgery for breast cancer followed by conventional adjuvant chemotherapy.
- **December 13, 2021:** Diagnosed with multiple metastases to the liver, cervical lymph nodes, and thoracic vertebrae. Underwent extensive spinal surgeries:
 1. Fixation of the 7th cervical vertebra with six steel screws.
 2. Cement augmentation (vertebroplasty/kyphoplasty) of the 1st thoracic vertebra.
- **Postoperative Status:** The patient developed high paraplegia post-surgery, with severe neurological deficit—preserved movement only in the toes.

Cell-Based Immunotherapy and Outcomes

- **Initiation (April 26, 2022):** Commenced allogeneic CIK immune cell therapy
- **Initial Regimen:** Received two courses of treatment within three months.
- **Outcome (September 13, 2022):** Per communication from the patient's husband, Ms. Wang showed significant recovery, achieving basic activities of daily living (ADLs) independently. A third course of cell therapy was administered concurrently.
- **Long-Term Outcome (April 6, 2023):** The patient's physical condition was nearly fully restored. She regained the ability to resume normal work.

Conclusion

This patient with advanced metastatic breast cancer, who suffered severe functional impairment (high paraplegia) following palliative spinal surgery, achieved a remarkable functional recovery and disease control after receiving immune cell-based therapy. The significant neurological improvement, culminating in the ability to live independently and return to work, suggests a potential role for immunotherapy not only in controlling advanced disease but also in possibly contributing to neurological repair and enhancing overall recovery in selected patients. This case underscores the potential of cell-based immunotherapies as part of a comprehensive management strategy for improving quality of life and functional outcomes in advanced cancer patients.

