

Case Study – The Analysis of Oncoproteins

*A Case Study
highlighting the post-
surgery recovery of a
Stage 3a non-small cell
lung cancer patient
with Boehmeria
Nivea L*

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Case Study Objectives

- To compare the oncoproteins through administration of a cancer protein test before and after the cancer surgery in relation to stage 3a non-small cell lung cancer
- To recommend a customized follow-up program to reduce the risk of cancer recurrence after surgery

Client Background

Gender	Female
Age	68 years old
Occupation	Businessperson
Medical History – First Visit	Bilateral lung adenocarcinomas is the medical condition. The left-side has gone under operation through surgical removal, and currently waiting for the right-side operation in Taipei, Taiwan
Current Medication	Traditional Chinese Medicine prescribed by a local physician in Beijing
Reference Year	2018

Key Problems

Stage 3a non-small cell lung cancer. At initial client visit, Left Lung was already operated.

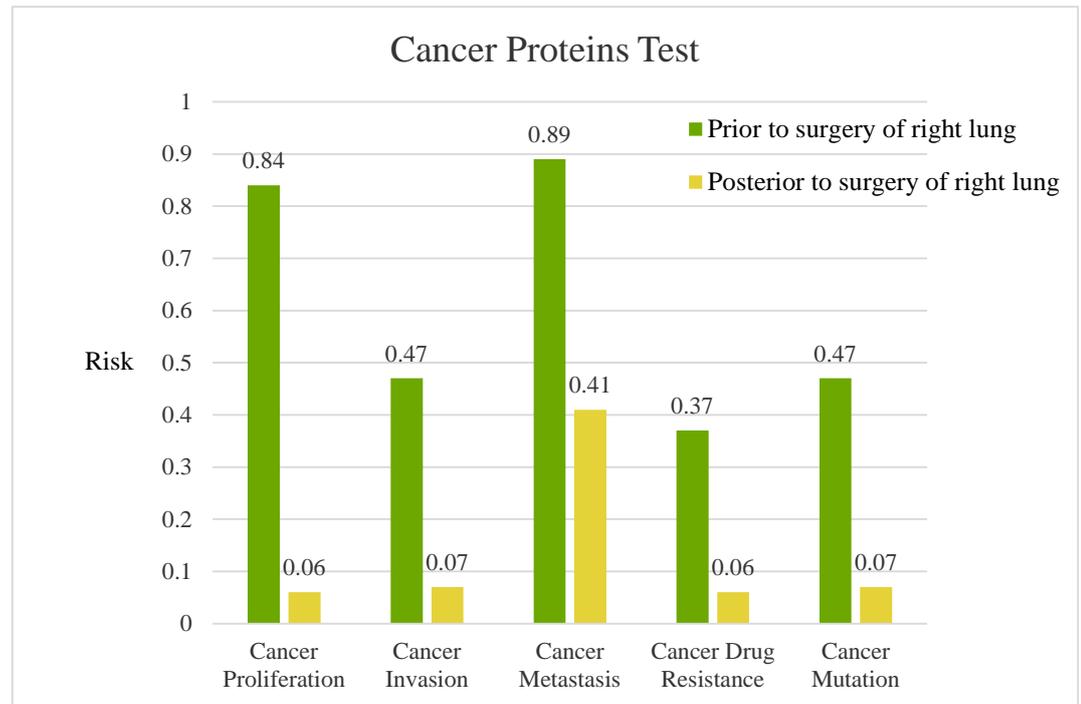
Recommendations

Check the oncoproteins (COX-2, GRP78, AKT, p38 MAPK, P-glycoprotein, β -catenin, MMP-9, Thr308) before and after the right-side lung surgery. Technology for the cancer market test was provided by Forall Biotech.

Test Results

First Test – 2018/06 (Right Lung pending operation, as Left Lung already operated).

Second Test – 2018/10 (Right Lung already operated)



Levels of Risk

0.00—0.20 **Rare Risk**

0.20—0.40 **Low Risk**

0.40—0.60 **Moderate Risk**

0.60—0.80 **High Risk**

0.80—1.00 **Extreme Risk**

Post-Surgery (Right Lung) Conclusion

The patient with Stage 3a lung adenocarcinoma is still at risk for developing cancer recurrence due to micrometastases after surgery. The attending physician arranged annual CT scans and chest x-rays three times per year for the patient in order to detect recurrent or repeat cancers early when she appeared to be cured.

Other than that, the patient accepted the blood oncoproteins tests before and after her right-side lung operation. The oncoproteins test just requires approximately 12 ml of the patient's blood each time. Comparing the pre-surgery and post-surgery cancer proteins reports, we arrived at some of the following points:

- ✓ The risks of cancer proliferation and invasion dropping to the range of “**Rare Risk**” signify that the tumors and the surrounding infected tissues were thoroughly eliminated.
- ✓ The risk of cancer metastasis being still at the level of “**Moderate Risk**” after surgery reveal the tumor resection can't prevent the metastatic cancer cells from migrating.
- ✓ The risks of cancer drug resistance and cancer cell mutation declined to the level of “**Rare Risk**” indicate the patient didn't receive radiation, chemotherapy, precision medicine or targeted therapy after operation yet.

As the patient's post-surgery cancer proteins report showed the presence of micrometastases, what kind of the treatment may benefit the patient next?

New Strategy to Improve Cancer Treatment Follow-up

- ✓ Anti-oncoproteins therapy
- ✓ Cancer proteins test every 3 months

Over the past two decades, researchers from Germany, Taiwan and other countries have demonstrated Boehmeria Nivea L. extract (BNE) has multiple functions in addressing cancer cells, including the inhibition on the inflammatory COX-2 proteins, the cancer development regulation protein, β -catenin, the cancer cell survival protein, AKT, anti-apoptotic protein, GRP78, the invasion and metastasis associated protein, MMP9 and chemotherapeutic drug resistant protein, P-glycoprotein.

The result showcase that BNE inhibited the growth, invasion, migration and mutation of the cancer cells. At present, BNE has been made into granules, capsules and tablets.

Recommended Prescription

Due to micrometastases having been detected by the cancer proteins test after surgery, BNE granules of 18 gm daily have been prescribed to the patient for the initial three months.

The rationale for the administration of BNE depends upon the assessment of pharmacokinetic (PK) and pharmacodynamic (PD) interaction of BNE. The dosage of extract granules would be adjusted according to the result of the cancer protein test three months later.

Summary of BNE Intake

Date	Intake Period
Early 2018	Left Lung under Surgical Removal
2018/6	First Cancer Market Test
2018/6-10	BNE Intake – Four Months
2018/9	Right Lung under Surgical Removal
2018/10	Second Cancer Marker Test
2018/10-12	BNE Intake – Two Months
2020/1	Third Cancer Market Test

Summary of Impact - BNE Intake

BNE serves different purposes pre- and post-surgery and is therefore prescribed separately.

For pre-surgery, BNE is able to create a clear pathway between the healthy cells and cancerous cells, essentially segregating the latter into a defined area, which allows for a clear cancerous area to be scanned by medical scans. The benefits of this are:

- Allow a cleaner and more precise surgical removal
- Reduces the time of surgery
- Helps to reduce the need to remove additional healthy cells and organs during surgery

For post-surgery, BNE is recommended for continual intake for the following purposes:

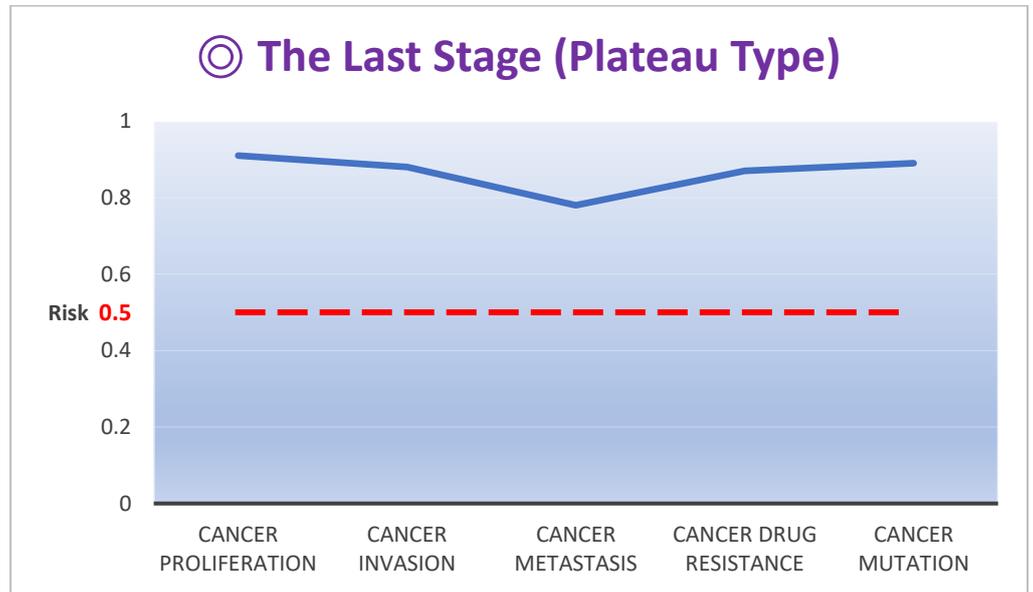
- Reduce the cancerous cells and cancer proteins which were not able to be removed during surgery
- Remove the cancerous cells which could have spread through the blood lymphatic system during surgery
- Lower the chance of recurrence of cancer for patients who have chosen to discontinue further treatment including chemotherapy and other conventional methods

About the Author

Da-Yung Lin double majored in Chinese and Western Medicine as an undergraduate at China Medical University in Taichung. The school mission is to become a global leader in both Chinese and Western Medicine. After graduating from the university, Lin passed the professional exams in both disciplines and then integrated Chinese and Western Medicine in clinical practice for about 20 years. The years of experience is supported by the transition of Traditional Chinese Medicine (TCM) as it undergoes qualitative and quantitative analysis, allowing medical practitioners to combine the use of Chinese and Western Medicine precisely and efficiently. Consequently, the concentrated herbal extracts in biotechnological process are the absolute requirement of connecting the traditional and modern medicine in the future.

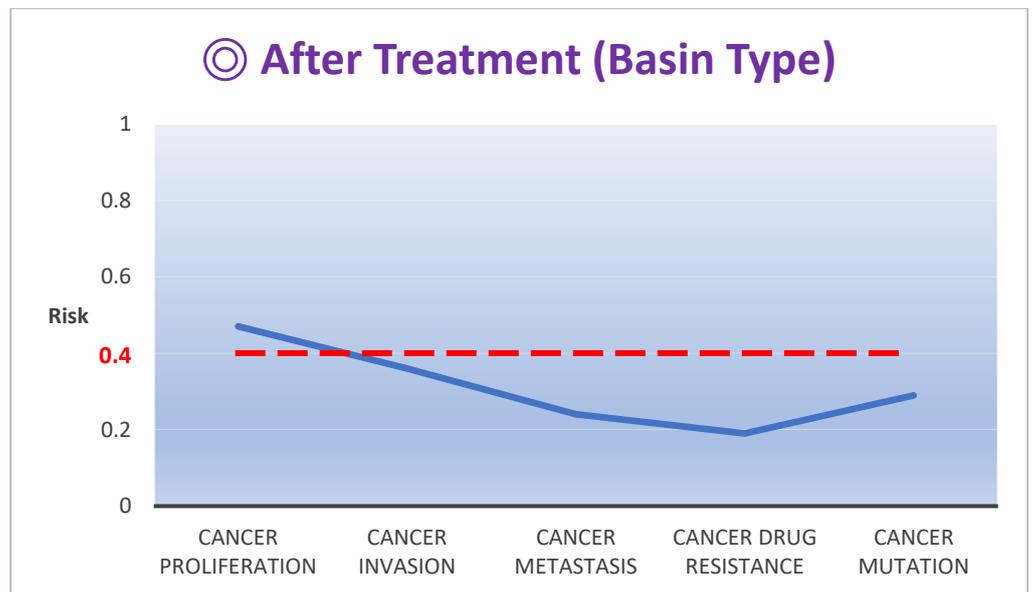
Case Study Attachments

Below is a case study of another patient which highlights the positive impact of BNE intake.

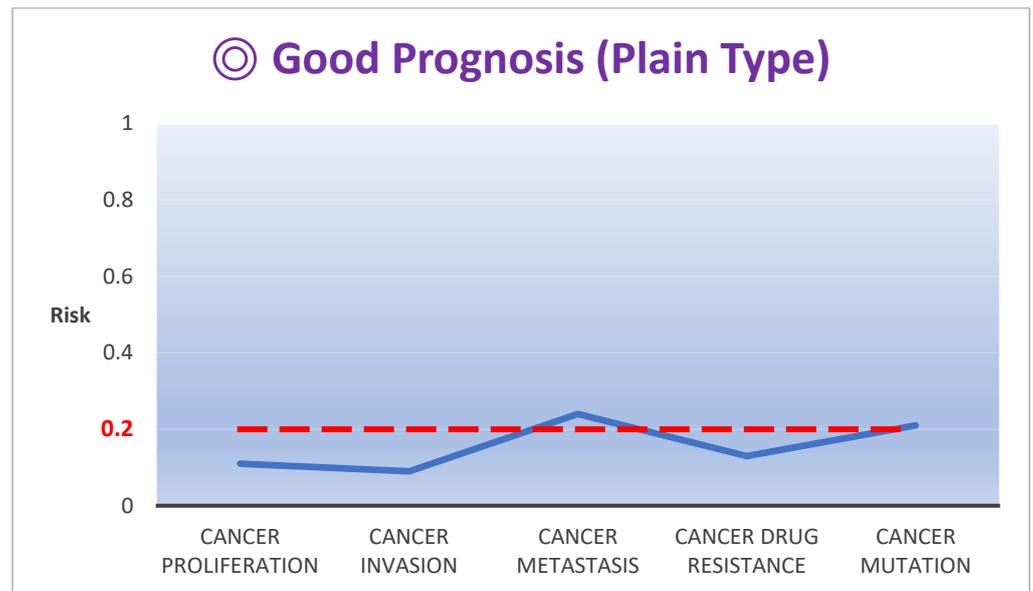


Above: First Cancer Marker Test

Below: Second Cancer Market Test after One Year of BNE Intake



Below: Third Cancer Market Test after Another Six Months of BNE Intake



Reference

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2. Mazhar, D., Ang, R. & Waxman, J., 2006. COX inhibitors and breast cancer. *Br J Cancer* 94: 346–350.
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