Discussion on the Attributes of Natural Biodegradant in Killing and Inhibiting Viruses

Fenglin Gao, Xinyuan Zhang, Jingzhu Zhang

Guoyu Jinfang (Beijing) International Medical Research Institute, Beijing, 100010, China

Abstract: Natural biodegradant, found and named by the author's scientific research team, refer to a type of substance with special molecular structure, and its molecular weight ranging from 50 to 80,000. Compared to that found in animal bodies, this substance contained in plant organism is stable and can be easily processed. It exhibits low solubility in water and organic solvents, making it less absorbable by human body. Through processing with sophisticated bioengineering technology, the human absorptivity for the derivatives of this substance can reach up to 90%. In the human food chain, the toxicity of this substance is lower than that of sucrose. The natural biodegradant and its attributes discussed in this paper refer to these derivatives. Both in-vitro scientific validation and empirical human trials have confirmed its effective and broad-spectrum capacity in killing and inhibiting viruses and bacteria, and in-vitro tests have shown that its killing rate and inhibition rate for nine types of viruses are both above 99%. Specifically, when the test sample is diluted at a ratio of 1:5000 (with the test sample containing 1% natural biodegradant), the actual concentration of 1:500000 exhibits a significant inhibitory effect on HBV DNA; when the test sample is diluted at a ratio of 1:500, the actual concentration of 1:50000 shows an inhibition rate of 70.30% on HBV DNA. This is an extremely rare finding of a virus-inhibiting substance in the food chain. Its effects on viruses include but are not limited to the inhibition on HBV DNA; when the test sample is diluted at a ratio of 1:500, the actual concentration of 1:5000 shows an inhibition rate of 70.30% on HBV DNA. This is an extremely strong activity. When the concentration of aqueous solution exceeds 1.5%, it can polymerize all the H2O in solution within 3 seconds, subside the fever caused by various diseases (including cancer) within 72 hours, and completely cure many difficult-to-treat and complicate diseases, such as pharyngitis, gastroenteritis, colitis, rhinitis, myocarditis, pericarditis, prostatitis, hepatitis, and nephritis. Natural biodegradant exhibits extremely strong activity. When the concentration of aqueous solution exceeds 1.5%, it can polymerize all the H2O in solution within one year; when the concentration reaches 10%, the polymerization reaction will be completed within 24 hours; the higher the concentration is, the shorter the polymerization reaction lasts. With such superlatively strong biological attributes, it shows the repairing effect on mutated (cancer) cells, damaged cells, immune-deficient cells, nerve cells and endocrine cells when acting on human bodies.

Keywords: Natural Biodegradant; Viruses; Mutated (Cancer) Cells; Damaged Cells; Immune-Deficient Cells.

1. Introduction

As a kind of special biological pathogen, viruses only exhibit biological characteristics within host cells, while exist in an organic form under other environments. Up to now, human beings have not developed the drugs capable of killing them, and methods like enhancing immunity are the means to assist the body in combating viruses. Consequently, viral epidemics continue to inflict catastrophic losses upon humanity. [1]

When the SARS epidemic broke out in 2002, the author began to collect virus-related information and figure out scientific research approaches, methods and arrangements. Through collaborative efforts, the author addressed necessary conditions including equipment, talents and knowledge reserves, and formed a scientific research team through cooperative agreements. The phenomenon of self-recovery from viral diseases is attributed to the body's own immune response. The question arises: what is the source substance for the body's innate immunity? This hypothesis leads to the discovery of substances that have the potential to kill and inhibit viruses within the human food chain. Considering this, the author was inspired to determine the research direction, approach and screening range for this study.

As a result of serendipitous events during the scientific research aimed at killing viruses, it’s found that the designed results also achieved breakthroughs in repairing mutated (cancer) cells, damaged cells and immune-deficient cells, and addressing other challenges. These observations revealed a close connection between viruses, cancer cells, damaged cells and immune-deficient cells. The finding of natural biodegradant and its attributes were achieved through brand new scientific research approach, method and human body verification, rendering it of certain reference value to medical research.

The paper discussed and introduced the attributes of this substance and the verification process.

2. The Process of Discovering the Attributes of Natural Biodegradant

In early 2010, the scientific research team finally obtained an ideal substance. After toxicological testing, it’s found that its toxicity is lower than that of sucrose, falling within the range of safe consumption.

During a medical examination in November 2010, the author was diagnosed with cancer antigen 724 (CA724) of nearly five times higher than the normal range. Considering that the author had a 40-year history of secondary gastritis, the probability of developing into cancer was extremely high. The author declined all the recommendations for treating gastric cancer from experts, and orally consumed this substance for the first time in a desperate condition. Within less than a month, all the indicators returned to normal.
This remarkable efficacy began to be widely disseminated among the author’s relatives and friends. With continuous miraculous outcomes observed in human trials, and a gradual increase in scientific validation reports, this substance was named as "natural biodegradant" in 2017, and plenty of its attributes were introduced based on human trials [3].

In 2017, industrial-scale production of this substance was completed, and the user base expanded. It was found that people consuming this substance could avoid various strains of influenza and suffer fewer colds. When treating with this natural biodegradant, patients suffering from severe illnesses, such as influenza, colds and EB virus, were cured within 72 hours [4], patients with herpes zoster experienced a cessation of rash development within 24 hours, and patients suffering from various kinds of cancers experienced arrested progression and dissemination of lesions, leading to the disappearance of symptoms. As the group of human trial verification expanding, more comprehensive and clear understanding of the attributes were achieved, and were summarized as follows.

3. The Attribute of Killing and Inhibiting Pathogenic Virus and Bacteria

3.1. In Vitro Verification Test for the Effect of Natural Biodegradant on Influenza Virus A-type PR8 Strain (H1N1)

The test was conducted in the laboratory of Wuhan Institute of Virology, Chinese Academy of Sciences. Test samples were prepared in the laboratory of Beijing Gaoshijie Technology Development Co., Ltd. with the preparation date on December 20, 2015. The samples to be tested contained 1% of natural biodegradant and were named "YEMIUNE Oral Liquid", Sample 1: 30ml X10 bottles, Sample 2: 60mlX10 bottles, brown gel-like aqueous solution; Sample No. 2: ethanol solution (40%), deep brown, 60mlX10 bottles. The samples were stored at 4°C for future use after sterile filtration through a 0.22µm filter.


3.1.2. Materials

The Influenza Virus A-type PR8 Strain, cataloged as IVCAS 6.6138 by China General Virus Collection Center, was prepared and calibrated by the Center. MDCK cells were provided, cultured, and maintained by the test unit. MEM culture medium, antibiotics and other materials were also provided by the test unit. MEM culture medium containing 10% fetal bovine serum was used as cell culture medium, while MEM culture medium containing 2% fetal bovine serum was used as cell maintenance medium.

The starting titer of PR8 virus was 5.3 LogTCID50/ml, stored at -80°C for later use.

3.1.3. Test Methods

MDCK cells were cultured in MEM culture medium until monolayer was formed, then infected with PR8 virus. Harvest the virus after culturing in cell maintenance medium at 37°C for 24 hours. Determine the 50% tissue culture infectious dose (TCID50) of the viral suspension on MDCK cells grown to monolayer in a 96-well plate.

Mix 1 ml of the sample to be tested with 1 ml of virus suspension, and incubate the mixture at 37°C for 15 minutes in a constant temperature incubator. Perform a 10-fold serial dilution on the mixture, preparing concentrations of $10^1$, $10^2$, $10^3$, $10^4$, $10^5$, $10^6$, $10^7$, $10^8$, $10^9$ and $10^{10}$. Add these diluted solutions into the wells of a 96-well plate containing mono-layer cultured cells, with 4 replicate wells for each dilution concentration. Place the plate in a constant
temperature incubator at 37°C (with 5% CO₂ concentration) and culture it for 5 consecutive days. Observe the morphology of the cells each day and determine the inactivation effect of the sample to be tested on PR8 virus based on the cell wells showing lesions after 96 hours. Repeat the test for 3 times.

Establish the virus control group, mix the virus with maintenance medium, followed by a 10-fold serial dilution and culturing under the same method and conditions.

Establish the negative cell control group, add cell maintenance medium into MDCK cells and culture under the same conditions.

3.1.4. Test Results

The maximum inhibitory concentration of the sample to be tested on MDCK cells was 100µl/ml, indicating that the sample to be tested had certain inhibitory effect on the growth of cells in vitro.

In the test, two types of samples were mixed with the virus and tested for virus titer. The results showed that the samples had significant inhibitory effect on MDCK cells infected with PR8 virus. The calculation results of virus inactivation logarithm and virus inactivation rate were as shown in Table 1.

<table>
<thead>
<tr>
<th>Sample to be tested</th>
<th>Before sample processing</th>
<th>After sample processing</th>
<th>Virus inactivation logarithm</th>
<th>Virus killing rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR8 residual titer</td>
<td>5.3</td>
<td>1.25</td>
<td>4.05</td>
<td>99.99%</td>
</tr>
<tr>
<td>PR8 residual titer</td>
<td>5.3</td>
<td>1.00</td>
<td>4.3</td>
<td>99.99%</td>
</tr>
<tr>
<td>PR8 residual titer</td>
<td></td>
<td></td>
<td></td>
<td>ND</td>
</tr>
</tbody>
</table>

Note: Virus titer unit: LgTCID₅₀/ml. ND: Not detected.

3.1.5. Conclusion

After 15 minutes of action on Influenza Virus Type-A PR8 Strain, the inactivation logarithms of the two test samples reached 4.05 and 4.3 respectively, and the virus killing rate reached 99.99%, showing significant inactivation effect.

Please refer to Annex 2: Scientific Verification Report of Wuhan Institute of Virology, Chinese Academy of Sciences, as shown in 2.1 and 2.2 in both Chinese and English.

The findings of this test have elucidated the efficacy of natural biodegradant in preventing influenza in practical human verification. Patients suffering influenza-caused fever consume 10g of natural biodegradant (in Tablets or Candy Pills) at once, their body temperature fluctuates after approximately 40 minutes, with a cycle of 20-30 minutes and a continuous decrease in high points. Consuming natural biodegradant three times a day, most of patients recovered within 24 hours; and severe patients showed recovery within 72 hours.

3.2. In Vitro Verification Test for the Effect of Natural Biodegradant on Herpes Simplex Virus HSV-1 and HSV-2

The test method was identical to that of 1:1. The result of in vitro verification test for the effect of natural biodegradant on Herpes Simplex Virus HSV-1 and HSV-2 was that the killing rate reached up to 99.99%.

The detailed testing process and data are from the National Biosafety Laboratory in Wuhan.

The pain was immediately relieved and inflammation subsided rapidly following the application of natural biodegradant to various herpes lesions. Consuming natural biodegradant in the form of Candy Pills three times a day with 10g each time, most of patients with EB virus recovered within 72 hours. In herpes virus patients, eruption ceased within 24 hours of consuming the Candy Pills (as above), and existing lesions healed within 2-3 weeks upon application of the Ointment.

3.3. Verification of the Effect of Natural Biodegradant on Hepatitis B Virus (HBV)

This test involved continuous dilutions to analyze the effective concentration range of natural biodegradant in inhibiting the virus.

The test was conducted in the laboratory of Wuhan Institute of Virology, Chinese Academy of Sciences.

3.3.1. Test Methods

Refer to the Guidelines for the Submission of Virological Research Data for Antiviral Drugs released by the China Food and Drug Administration on May 15, 2012, and relevant references [5].

3.3.2. Materials

Samples to be tested: plant drinks containing mint and honeysuckle, 60mlx30 bottles; aqueous solvent containing 1% of natural biodegradant, prepared by the laboratory of Beijing Gaoshijie Technology Development Co., Ltd. for its cooperating party Beijing Mingqiu Xinyuan Health Technology Co., Ltd.

HepG2.2.15 cells, a liver cancer cell strain stably expressing hepatitis B virus (genotype: D), sourced as detailed in reference [6], provided, cultured and maintained by the test unit.

Pancreatin: Purchased from GIBCO (now Life Technologies).

DNase I: Purchased from SIGMA.


Hepatitis B e Antigen Diagnostic Kit (ELISA): Purchased from Shanghai Kehua Bio-Engineering Co., Ltd., Batch No. 201705112.

PBS: Purchased from Wuhan Boster Biological Technology Co., Ltd.


FastStart Universal SYBR Green Master (Rox): Purchased from Roche, Art. No. 4913914001, Batch No. 11340500.

3.3.3. Instruments

Benchtop Room-Temperature Centrifuge: Manufactured by Eppendorf, Model Centrifuge 5424;

Enzyme-Linked Immunosorbent Assay (ELISA) Reader: Manufactured by BioTek, Model ELS808.

Real-Time Fluorescence Quantitative PCR Instrument: Manufactured by Applied Biosystems, Model QuantStudio® 6 Flex.
Samples to Be Tested

3.3.4. Test Process and Methods

1 pack (25g) of PBS powder dissolved in 2L of deionized water and sterilized for later use.

Samples to be tested were serially diluted in serum-free DMEM at concentrations of 1:2500, 1:5000, 1:25000, 1:50000 and 1:250000.

Add HepG2.2.15 cells in DMEM +10%FBS (250µg/ml G418) culture medium, and culture at 37°C in 5%CO2 constant-temperature incubator.

Lay the cells in a 24-well plate at a density of $2.0 \times 10^5$ cells/well for analyzing the effect of the test sample on HBV, and at a density of $5 \times 10^4$ cells/well for analyzing the cytotoxicity of the test sample.

After culturing for 16-24 hours, discard the culture medium in the 24-well plate and wash the cells with PBS for three times. After that, add 250µl of DMEM+20%FBS fresh culture medium into each well, followed by the addition of 250µl of the diluted test sample solution to achieve a final volume of 500µl per well. The final diluted concentrations of the test samples were 1:5000, 1:10000, 1:50000, 1:100000 and 1:500000. 4 wells were arranged for each diluted concentration, and additional 4 wells were arranged without adding the test samples but receiving 250µl of serum-free DMEM culture medium.

After culturing for 96 hours, observe the cell morphology under a microscope and take photos to analyze the toxicity of the test sample to cells. Collect the cell culture supernatant from the 24-well plate into the 1.5ml centrifuge tube, centrifuge at 5000rpm for 15 minutes and collect the culture medium supernatant for further use.

The treatment of the 96-well plate was identical to that of the 24-well plate, with the final volume of culture medium reaching 125µl.

Cells were cultured at 37°C in 5%CO2 constant-temperature incubator for 96 hours.

After 96 hours of cell culture, observe the cell morphology under a microscope and take photos to analyze the toxicity of the test sample to cells. Collect the cell culture supernatant from the 24-well plate into the 1.5ml centrifuge tube, centrifuge at 5000rpm for 15 minutes and collect the culture medium supernatant for further use.

WST-1 assay reagent was added into each well of the 96-well plate at a ratio of 1:10. Place it in Enzyme-Linked Immunosorbent Assay (ELISA) Reader (purchased from BioTek, Model ELX808) to read the absorbance value at 450nm wavelength 2 hours after mixing it well.

Based on WST-1 assay, it’s found that there was no significant difference in absorbance values between the test sample-treated group at the five dilutions (1:5000, 1:10000, 1:50000, 1:100000) and the untreated group (see Figure 1). Microscopic observation revealed no significant difference in cell morphology between the test sample-treated group and the untreated group. These results indicated the test samples at these 5 diluted concentrations exhibited no significant cytotoxicity and could be further analyzed for antiviral activity.

![Figure 2](image_url)

**Figure 2.** The effect of test samples on cell activity at concentrations of 1:5000-1:500000

**ELISA Analysis**

The collected cell culture supernatant was diluted with PBS for 5 times, followed by semi-quantitative analysis of HBsAg and HBeAg with ELISA kits. The procedures were conducted according to the instructions provided for hepatitis B surface antigen diagnostic kits and e antigen diagnostic kits, respectively. The inspection results were read by using the Enzyme-Linked Immunosorbent Assay (ELISA) Reader (purchased from BioTek) with the absorbance values measured at wavelengths of 450nm and 630nm. Specifically, 450nm was the main wavelength, detecting the absorbance values of the sample coloration (450nm is the maximum absorbance peak) + the absorbance values of the reagent background color and the well plate itself; 630nm was the secondary wavelength, used to eliminate the absorbance values of reagent background color and the well plate itself as well as other interference factors. The final experimental absorbance value of the sample coloration was calculated within OD450-OD630. A Cut-off value was set as follows: the average value of the negative control in the kit X2.1=0.1, it’s considered positive in the case ≥ the Cut-off Value, and negative in the case < the Cut-off Value.

After digesting the collected supernatant with DNase1 overnight, extract HBV DNA by using QIAamp DNA Blood Mini Kit. Then real-time PCR quantitative analysis was performed by using the FastStart Universal SYBR Green Master (Rox) to determine the copy number of HBV DNA.

The formula for calculating the inhibition rate is as follows: The Inhibition Rate = (1 - Detection Value of the Treated Group / Detection Value of the Untreated Group) × 100%.

3.3.5. Test Results

**HBsAg Analysis**

Compared to the group without adding test sample, there was no significant change in the OD values of HBsAg in the sample-treated group, indicating that the test sample's inhibitory effect on HBsAg was not significant within the concentration range of 1:5000-1:500000.
HBeAg Analysis

Compared to the group without adding test sample, the OD values of HBeAg in the sample-treated groups with concentrations above 1:50000 were significantly reduced. There was a slow upward trend in the inhibition rate following test sample’s increasing concentration, as shown in Table 2.

### Table 2. The inhibitory effect of the plant drinks containing mint and honeysuckle on HBeAg

<table>
<thead>
<tr>
<th>Group</th>
<th>OD450-OD630 (X±S)</th>
<th>Inhibition rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant drinks containing mint and honeysuckle</td>
<td>0 1.498 ± 0.088</td>
<td>0</td>
</tr>
<tr>
<td>1:500000</td>
<td>1.510 ± 0.110</td>
<td>-0.80</td>
</tr>
<tr>
<td>1:100000</td>
<td>1.410 ± 0.157</td>
<td>5.89</td>
</tr>
<tr>
<td>1:50000</td>
<td>1.280 ± 0.108</td>
<td>14.54</td>
</tr>
<tr>
<td>1:10000</td>
<td>1.255 ± 0.062</td>
<td>16.20</td>
</tr>
<tr>
<td>1:5000</td>
<td>1.239 ± 0.070</td>
<td>17.27</td>
</tr>
</tbody>
</table>

Test samples at the concentration above 1:50,000 exhibited certain inhibitory effect on HBeAg.

HBV DNA Analysis

Compared to the group without adding test sample, test samples diluted at 1:10,000 and 1:5,000 showed significant inhibitory effect on HBV DNA, and the inhibition rate gradually increased following test sample’s increasing concentration. There was no significant change in absolute copy number and relative level in the case of concentration below 1:50000.
Please refer to Table 3 for the inhibition rates of each concentration in the test.

**Table 3.** The inhibitory effect of plant drinks containing mint and honeysuckle under different dilution concentrations on HBV DNA

<table>
<thead>
<tr>
<th>Group</th>
<th>Plant drinks containing mint and honeysuckle</th>
<th>HBV DNA (Copy/ml) x10 (X ± S)</th>
<th>Inhibition rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>16.72 ± 4.99</td>
<td>0</td>
</tr>
<tr>
<td>1:500000</td>
<td></td>
<td>14.20 ± 1.82</td>
<td>15.10</td>
</tr>
<tr>
<td>1:100000</td>
<td></td>
<td>16.29 ± 2.02</td>
<td>2.56</td>
</tr>
<tr>
<td>1:50000</td>
<td></td>
<td>13.93 ± 1.93</td>
<td>16.72</td>
</tr>
<tr>
<td>1:10000</td>
<td></td>
<td>5.92 ± 0.84</td>
<td>64.62</td>
</tr>
<tr>
<td>1:5000</td>
<td></td>
<td>4.96 ± 0.027</td>
<td>70.30</td>
</tr>
</tbody>
</table>

**3.3.6. Test Conclusion**

When diluted at ratios of 1:50000, 1:10000 and 1:5000, test samples showed significant effect on HBeAg in vitro, and the inhibition rate was significantly increased following the increasing concentration.

When diluted at ratios of 1:10000 and 1:5000, test sample showed significant effect on HBV DNA, the inhibition rate was significantly increased following the increasing concentration and reached 70.30% at the concentration of 1:5000 (test sample contains 1% of natural biodegradant and the actual concentration converted was 1:50000).

The data and conclusion are sourced from the inspection report of the Wuhan Institute of Virology, Chinese Academy of Sciences.

The high efficiency of in vitro verification test indicated strong biological activity of natural biodegradant, providing a good explanation for the significant effects observed in practical human trials.

In early 2017, Beijing Zhongguancun Medical Engineering Transformation Center hosted an international symposium where the academicians from the United States, the United Kingdom, China, and other countries optimistically predicted that cell therapy might eventually enable carriers of hepatitis B virus to produce positive surface antibody HBs, thereby eliminating their own and infectious hazards. At that time, the author was keeping a report of the Five Items of Hepatitis B Test in the file folder showing such results in a carrier of HBV virus who had consumed natural biodegradant (see Figure 6).

After the symposium, the author presented this test report to Academician Wang Fusheng, proving the correctness of the academicians' prediction, as the natural biodegradant had already achieved this research goal ahead of schedule.
3.4. In Vitro Effects of Natural Biodegradant on Various Viruses

Natural biodegradant also exhibited good inhibitory effects on the following viruses (see Table 4) in vitro verification.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Test solution concentration</th>
<th>Virus</th>
<th>Virus inactivation rate</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquilaria sinensis I</td>
<td>0.8%</td>
<td>H3N2</td>
<td>99.86%</td>
<td>Third-party testing organization</td>
</tr>
<tr>
<td>Aquilaria sinensis I</td>
<td>0.8%</td>
<td>Helicobacter Pylori</td>
<td>99.94%</td>
<td>Third-party testing organization</td>
</tr>
<tr>
<td>Aquilaria sinensis II</td>
<td>0.8%</td>
<td>HCoV-229E</td>
<td>99.73%</td>
<td>Third-party testing organization</td>
</tr>
<tr>
<td>Aquilaria sinensis III</td>
<td>0.8%</td>
<td>HPV18</td>
<td>99.86%</td>
<td>Third-party testing organization</td>
</tr>
<tr>
<td>Aquilaria sinensis III</td>
<td>0.8%</td>
<td>Poliovirus</td>
<td>99.58%</td>
<td>Third-party testing organization</td>
</tr>
<tr>
<td>Fangchuan Materia Medica Oropharynx Antibacterial Spray</td>
<td>1%</td>
<td>Norovirus GV-type</td>
<td>99.00%</td>
<td>Third-party testing organization</td>
</tr>
</tbody>
</table>

Note: Aquilaria sinensis I, II, III and Fangchuan Materia Medicae Oropharynx Antibacterial Spray is a series of products developed by our cooperative company using natural biodegradation technology.

Natural biodegradant can kill and inhibit viruses, including but not limited to those mentioned above, and no evidence has been found to suggest ineffectiveness against any specific virus up to now.

Patients with COVID-19, taking 10g of Candy Pills each time and three times a day, experienced temperature fluctuation 40 minutes later, with a cycle similar to that of influenza; swallowing the Oral Liquid of 4ml each time to relieve throat pain; applying the Ointment to the area suffering muscle soreness. Natural biodegradant has shown significant therapeutic effects on diseases-caused anorexia and vomiting [7], and most patients recovered within 48 hours with no lasting symptoms.

Through human trials, it has been found that natural biodegradant also has the following additional attributes that cannot be ignored.

4. Attribute of Natural Biodegradant in Repairing Abnormal Cells

4.1. Repairing Mutated (Cancer) Cells

...
There have been no cases reported of ineffective, spreading, or worsening condition in various cancer patients using natural biodegradant.

Cancer patients taking sufficient amount (3-4 times a day and 10g each time) of natural biodegradant (in Tablets or Candy Pills) experienced the restoration of liver function, kidney function, blood parameters and other abnormal indicators affected by the disease or chemotherapy within about a month as long as the patient's digestive system could still digest natural biodegradant, and their symptoms were eliminated within 2-3 months, enabling them to lead normal lives and work like anyone else. Swallowing the Liquid made from natural biodegradant (4ml each time), patients with throat cancer or esophageal cancer experienced immediate alleviation of dietary obstructions. Patients with rectal cancer could have normal bowel movements within around 20 days after administering the Liquid rectally ((3-4 times a day and 30ml each time). Topical application of Liquid or Ointment to the sore area would immediately alleviate the symptoms.

Patient A, male and at the age of 67, complained of lumbar pain and was bedridden. He went to the hospital for examination on March 21, 2022 and was diagnosed with renal cancer that had metastasized to multiple bones and abdominal lymph nodes. See Figure 7.

The patient refused hospital treatment including surgery, chemotherapy and radiation therapy. Instead, he consumed the natural biodegradant and applied the Liquid and Ointment made from natural biodegradant to his lumbar spine. After 20 days, the lumbar soreness and pain disappeared and all blood parameters tended to be normal. His diet got normal and weight was stable. He could move freely, and resume normal activities and work. On August 25, 2022, his SPECT/CT examination showed a decrease in metabolic level compared to the result on March 25, 2022. See Figure 8.

For cancer patients, independent use of natural biodegradant yields the best therapeutic effect.

4.2. Repairing Damaged Cells

For burns (small area), scalds, sprains, injuries, cancer lesions, viral lesions, and pain caused by muscle lactate accumulation, the application of the Liquid can alleviate pain within 3 seconds while applying the Ointment can relieve pain within 30 seconds with other functions remain normal, which is distinctly different from anesthesia drugs. Using natural biodegradant for treating burns, scalds and injuries not only leaves no scar and color difference, but also produces certain reparative effect on old scars because it can absorb cell signaling and transduce mutant factors to repair damaged cells.

Patient B had scarred skin, as shown in Figure 9. The patient had suffered more than 10 years high blood sugar without using any glucose-lowering medications but
consuming natural biodegradant for a long term, which avoided the occurrence of various complications, see Figure 10. In September 2021, the patient received a minimally invasive surgery for hernia with incisions of approximately 1.5cm on each side. Continuing to consume natural biodegradant, when the gauze was removed, only about 1cm of incisions remained, and the incisions reduced to approximately 0.7cm on the left side and 0.5cm on the right side after several months, see Figure 11.

The attribute of natural biodegradant covers repairing damaged nerve cells.

Patient C, male and at the age of 60, woke up with facial nerve paralysis at 1 a.m. on November 13, 2021. He took Candy Pills made from natural biodegradant, 10g each time and three times a day. He held the Liquid made from natural biodegradant in his mouth for 3 minutes, then swallowed it; he dripped the Liquid into his right ear canal, and tilted his head to allow the Liquid to reach the eardrum and then poured it out; he also dripped the Liquid into both nasal cavities, applied the Liquid and Ointment to areas including the eyelids, right side of the face, around the right ear, and lymphatic area under the jaw. On the treatment day, his facial asymmetry began to be corrected, his ability to chew food was improved, tinnitus disappeared, lymph nodes softened, and his nose was essentially corrected. 2-3 weeks later, his facial nerve paralysis was completely cured, and all symptoms disappeared. See Figure 12 for the comparison of treatment effects.

Patient D, male and at the age of 80, was diagnosed with lung cancer at the age of 75, which spread to the brain 5 years after surgery. When hospitalized at Shanxi Provincial People's Hospital, he was in a deep coma (vegetative state), relying on the ventilator for breathing and receiving rice porridge and medication via the gastric tube. Two months ago, natural biodegradant was introduced into his diet. After one month, the patient began to show responses in his limbs, with kicking movements observed during foot massages. Two weeks later, he regained consciousness, and could sit up and speak. See Figure 13.

Patient E, male and at the age of 87, received lumbar disc surgery at the age of 81. After surgery, he experienced persistent lumbar pain due to nerve infection. Despite
treatment in multiple hospitals, his condition worsened, leading to the use of a cane for walking. After applying one bottle of the Liquid made from natural biodegradant, the pain disappeared, his lower limb strength increased, and he could walk independently. See Figure 14.

Figure 14. Before and after treatment comparison of spinal infection

4.3. Repairing Immune-Deficient Cells

Allergic reactions in human body are attributed to congenital immune dysfunction, which is associated with genetic defects.

The application of Liquid or Ointment made from natural biodegradant to allergic areas can quickly heal allergic dermatitis. Natural biodegradant can also completely cure urticaria. Consuming the natural biodegradant in solid form (in Tablets or Candy Pills) can repair genetic defects, normalize immune function, and achieve complete desensitization.

Patient F, with an allergic history spanning several decades, exhibited allergies at Grade 2 or above to pork, beef, lamb, poplar, elm, willow, dust mites and flour mites. After long-term consumption of natural biodegradant, the patient achieved complete and thorough desensitization. See Figure 15.

For the group suffering from high blood sugar companied with complication of glycosuria, the consumption of natural biodegradant can repair and reverse the glycosuria, occult blood, albumin and other indicators to normal levels within 20 days. See Figure 16.

The attribute of natural biodegradant for repairing damaged cells covers repairing damaged nerve cells and endocrine cells.
Figure 15. Allergy testing result after treatment

Figure 16. Comparison report of urine sugar reversal
5. Conclusion

The attributes of natural biodegradant are closely interconnected, collectively exerting effects on human body. The attributes of natural biodegradant have determined its discovery and widespread application, which will have a significant impact on human health and medical research, enable humanity to take the lead in the battle against viruses and cancer cells, and put an end to the history of viruses and cancer cells wreaking havoc on human health and life in terms of scientific understanding.

Natural biodegradant is the fruit of human scientific progress. Its discovery is achieved on the foundation of modern scientific and technological progress. The author and the research team merely serve as the messengers of nature through the application of modern biotechnology.

Different from modern standardized methods, there may be certain flaws and shortcomings in the discovery and human verification process of natural biodegradant. However, the results and conclusion obtained from practical human verification are objective.

References


[7] Discussion on the Therapeutic Effects of Natural biodegradant on Digestive System Diseases by Gao Jiejun, Gao Fenglin and Gao Jiejun, January 5, 2019, P85, Medicine, ISSN 1671-5837.