

Notice from the district hospital in Csorna, department for internal diseases  
(Chief: Dr. med. Alexander Ferenczi)

## Tumor Treatment with Red Beets

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With 6 pictures<sup>1</sup>

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It is common knowledge that certain plants have tumor inhibiting effects, i.e. Colchicum, Podophyllin (Meythaler and Haendel, Belkin, and Fitzgerald, Sullivan). Under this point of view, Belkin and Fitzgerald made a research into the other members of the plant family of the Podophyllins (Spermatophytes). They experimented with tumorous mice (cancer, sarcoma); 15 plants turned out to be effective, 7 of them inhibited the tumors very effective, among them Citrullus colocynthis, Bryonia alba, and Rheum.

Since October 1950, we researched the tumor inhibiting effects of the red beet (*Beta vulgaris*, *varietas cruenta*) in our department. Kunstmann gave the pressed juice of raw plants (among them red beet juice, too) to his patients suffering from leucemia and observed favorable effects. Because leucemia drugs are more or less effective on tumors, too, we tried to give tumor patients red beets. The red beet is a commonly known dark red plant of flattend globular shape, which is used as the main ingredient in salads. We gave them to our patients raw, fine grated, daily 20 to 25 dkg<sup>2</sup>, in tranches after the meals. If necessary, we sweetened and spiced the mousse before ingestion with weak sugar and vinagar solution. In case the patient could not ingest the mousse, we pressed the fine grated beets in a hand press (tinctur press of the pharmacist), 1 kg of red beets yielded about 3 dl<sup>3</sup> juice, which the patient ingested as well after the meals. Our first patient was ambulant.

1. D.S., a 50 years old man suffered from a lung cancer. The diagnosis was confirmed by a comitatus hospital, and a Budapest hospital. The man received Senfnitrogen<sup>4</sup>, and was later treated with urethane<sup>5</sup> and x-ray radiation. This treatment made the symptoms vanish for 4 weeks, the patient was feverless, the tumor vanished, then the patient

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<sup>1</sup> For the pictures please refer to the original in Ferenczi1959.pdf.

<sup>2</sup> 2 to 2.5 kg, around 5 pounds

<sup>3</sup> 300 ml, about 11 fl oz. Today, a good household press yields up to 750 ml per 1 kg.

<sup>4</sup> Cytotoxic gaseous lung cancer inhibiting drug, infamous for use in WW I as chemical weapon. Application requires the patient to go through a very long recovery period to cure the side effects inflicting the respiratory system. After introducing of Degranol into the clinical practice, since 1955 totally out of use.

<sup>5</sup> Naturally occurring cytotoxic cancer inhibiting drug, in use before 1970. Today out of use because it has carcinogenic effects coming with high dosages and chronically exposition.

fevered again, and the left-sided lung tumor reached the former size again (Pic. 1). The x-ray treatment could not be repeated, then, therefore I started the treatment with red beets in the way described. After a 6 weeks treatment the tumor vanished again, the patient was without fever. During the following 4 months of treatment he gained 10 kg of weight, the erythrocyte sedimentation rate decreased from 67 mm to 7 mm per hour, he showed all signs of a clinical recovery (Pic. 2). Afterwards, the patient did not take the red beets systematically. The recovery lasted for about a half of a year, then the erythrocyte sedimentation rate started to increase, the whole left lung wing started to be atelectatic<sup>6</sup>, the body temperature increased, he had repeatedly a heavy hemoptysis<sup>7</sup>, the body weight decreased. The patient was then able to ingest beet juice only; however, without success. In the left thigh developed a metastasis<sup>8</sup>, then the femur bone<sup>9</sup> broke. During developing cachexia<sup>10</sup> the patient died. Section and histological test did not happen; however, the history of the disease indicated that the patient had a malignant tumor, presumably cancer. As a consequence of a treatment with red beets this patient was free from all symptoms for a half of a year.

Afterwards I tried the treatment mentioned before with other patients as well. Certainly, the patients all were inoperable, mostly cachexic, and another treatment (operation, x-ray radiation) was out of question. So far, I had 22 patients with these conditions: 10 with lung tumor, 4 with stomach cancer, 2 with colon cancer, 2 with breast cancer, 1 with a metastasis after an operated cancer of the lips, 1 with prostate cancer, 1 with uterus cancer, and 1 with skin cancer. Histological tests we performed with 18 patients, this resulted in all cases with a diagnosis of cancer, except one with lung sarcoma<sup>11</sup>. The treatment with red beets was tried with many more patients; however, only a part of them was able to ingest them over a longer period of time, mostly patients suffering from liver and stomach cancer are not able to ingest red beets. The result was that from 22 patients 21 showed signs of clinical recovery. These were decrease of the tumors, gain of body weight between 3 and 11 kg, decreasing of the erythrocyte sedimentation rate; as well as increasing the appetite, and overall physical comfort. Unfortunately, after 3 to 4 months the patients stopped the ingestion of red beets. Consequently, their conditions decreased after another two to three months.

2 patients arrived at once for a treatment, one suffered from prostate cancer, the other

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<sup>6</sup> Collapse of lung tissue affecting part or the entire lung.

<sup>7</sup> Hemoptysis or haemoptysis is the expectoration (coughing up) of blood or of bloodstained sputum from the bronchi, larynx, trachea, or lungs.

<sup>8</sup> Metastasis (Greek: displacement, μετά=next + στάσις=placement, plural: metastases), sometimes abbreviated mets, is the spread of a disease from one organ or part to another non-adjacent organ or part. Only malignant tumor cells and infections have the capacity to metastasize.

<sup>9</sup> The femur is the thighbone.

<sup>10</sup> Cachexia is loss of weight, muscle atrophy, fatigue, weakness and significant loss of appetite in someone who is not actively trying to lose weight.

<sup>11</sup> A sarcoma (from the Greek 'sarx' meaning "flesh") is a cancer of the connective or supportive tissue (bone, cartilage, fat, muscle, blood vessels) and soft tissue. This is in contrast to carcinomas, which are of epithelial origin (breast, colon, pancreas, and others).

one from uterus cancer; they had the same body weight. The sufferer from prostate cancer could take the red beet cure, the sufferer from uterus cancer was not able to ingest it; however, she stayed in the department. The man's physical comfort started to increase. He arrived at our department in bed with all-time catheter, after one month the catheter was removed, the patient walked in the department. In the same time the woman's body weight decreased. After three months, the difference in body weight between man and woman was 10.5 kg. The man died on apoplexy<sup>12</sup>, during section we discovered his prostate cancer.

In fewer numbers we pursued animal trials. The Oncological Institute provided us with rats, injected with Guerin Tumor. A part of the animals was taken as control group, the other one was offered grated red beets, they could ingest ad libitum. We had 11 red beet ingesting and 5 control animals. The average life expectancy of the red beet ingesting group increased by 20% against the control group. In another group the animals did not ingest the red beets; in this case (6 red beets offered rats and 3 control rats) was no difference between the groups. This test as well did show, that the red beets have a certain inhibiting influence on the Guerin Tumor. Let me make a remark here that the Guerin Tumor is not ideal during test of tumor inhibiting drugs, newly for this purpose is recommended the Jensen, and the Joshida sarcoma, and the Walter 256 tumor (Schmaehl und Einem).

The experiences so far suggested that the red beets carry a tumor inhibiting (cancer inhibiting) active substance. As of today, there is no hint about the nature of this effective substance. It is certain, that it is not especially sensitive, because it works as well if per os<sup>13</sup> ingested; the metabolism does not damage the effect. The vibrant red color directs our attention to the suggestion that one would have to search for the active substance in this dyestuff. The treatment with red beets does show some significant advantages against any other artificial medication. First of all, there is no toxic or any other therapeutic effect (as with Colchicine<sup>14</sup> etc.). Red beet is not harmful and the dosage could be unlimited; on top of that, the red beets are available unlimited. Therefore, we tried to concentrate the effective substance and to give it to our patients in the largest possible amounts, because our patients could not ingest the red beets and its juice unlimited. In order to do so, we cooked the juice at 30 mm Hg and 50 degrees

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<sup>12</sup> The term apoplexy is used to describe bleeding within internal organs, or, historically, the word apoplexy was also used to describe any sudden death that began with a sudden loss of consciousness, especially one where the victim died within a matter of seconds after losing consciousness. It is not an actual verified disease process. Examples: Sudden cardiac deaths, ruptured cerebral aneurysms, certain ruptured aortic aneurysms, and even heart attacks.

We were not able to determine how Dr. Ferenczi used the term.

<sup>13</sup> By mouth, orally

<sup>14</sup> Colchicine is a highly poisonous natural product and secondary metabolite, originally extracted from plants of the genus *Colchicum* (Autumn crocus, *Colchicum autumnale*, also known as the "Meadow saffron"). Originally used to treat rheumatic complaints and especially gout, it was also prescribed for its cathartic and emetic effects. Its present medicinal use is mainly in the treatment of gout; as well, it is being investigated for its potential use as an anti-cancer drug.

centigrade, and reduced the juice to 10% to 20% of its original volume. So we were able to give portions of 1 – ½ dl with the effect of 1 l of the original juice.

Out of 22 patients ingested 14 the red beets or its juice respectively, the next 8 patients received already the concentrate. We gave always an amount corresponding to 1 l of the original juice. According to expectation, the patients took the concentrate better, and the preparation turned out to be more effective. We gave the concentrate of 1 – ½ dl each in several tranches daily. It was not necessary to spice up the preparation. The history of the disease of some patients will follow below. (A preliminary notice<sup>15</sup> about the treatment with red beets was published already.)

2. D.J., a man of 58 years of age, was hospitalized on Jan 5, 1956. He was ill since summer 1955, and was treated at some locations because of lung tumor, he received a full x-ray radiation already. At hospitalization, his body weight was 53 kg, fever of 39 degrees centigrade, the erythrocyte sedimentation rate was 115 mm per hour, the x-ray picture is shown in picture 3. In the mucus were found tumor cells (Priv.-Doz. Dr. Soos, senior physician in Győr-Raab). The patient received concentrate, on top of that 10 dkg raw red beets, and treatment of symptoms, Fe-pills, injections of Neoperheparin<sup>16</sup>, and Pyramidon<sup>17</sup>. After two weeks already he started to increase his body weight, after three weeks the fever decreased, from mid of March he was free of fever, the erythrocyte sedimentation rate started to improve after 2 months. At May 19 he was released home, then his body weight was 64 kg, the erythrocyte sedimentation rate was 10 mm per hour, the decrease of the tumor is shown in picture 4. Once at home, he received no treatment at all, he ate irregularly red beet salad. He was hospitalized again with a heavy remission, his body weight was 51.5 kg, the erythrocyte sedimentation rate 120 mm per hour, he was subfebril<sup>18</sup>. The x-ray picture showed a homogenous intense shadow all over the left wing of his lung, the left half of his breast basket was shrunk, the left part of the diaphragm did not move. He received concentrate again, and increased his body weight by 1.5 kg, but fever increased and his body weight decreased to 49 kg. Then, he was fever free again, and his body weight reached 52 kg, and the erythrocyte sedimentation rate as well decreased to 70 mm HG per hour, but the x-ray picture did not change (begin of April). On this condition he stood for about one month, then he deteriorated, his body weight decreased to 47 kg, the erythrocyte sedimentation rate increased to 110 mm per hour, and we sent him home.

At this point I want to say that we observed with him as well as with other patients with lung tumor during the treatment repeatedly a fever. We understood that as a bacterial infection, and we were able to normalize the body temperature over several days with Penicillin<sup>19</sup> and Streptomycin<sup>20</sup>.

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<sup>15</sup> Zeitschrift für die gesamte innere Medizin und ihre Grenzgebiete, Bd. 10, 1955, p 1078

<sup>16</sup> An anticoagulant.

<sup>17</sup> Aminophenazon, an antipyretikum, and painkiller, very popular since its initiation by Hoechst 1897, today known as i.e. Tylenol (acetaminophenazon).

<sup>18</sup> Any body temperature above 37.2 degrees centigrade.

<sup>19</sup>An antibiotic first isolated 1928 by Alexander Fleming, still in use.

The next patient we did not medicate actually; however, because of another interesting circumstance we payed regard to his history of disease.

3. Sz.J., a man of 54 years of age, was ill since December 1954. In February 1955 he was diagnostisized in the lung surgery department of a hospital with an inoperable lung tumor, which was histological positive as well. During one year he received an ambulant symptom treatment. He lost 27 kg, the erythrocyte sedimentation rate was 50 – 60 mm per hour, confirmed by repeated tests. In Fall 1955 he showed unexpected signs of recovery, he gained 12 kg of body weight. We hospitalized him at Jan 31 1956, he had no complains, the erythrocyte sedimentation rate was 13 mm per hour, see the x-ray picture of the lung in picture 5. We asked him intensly about the changes, and we heard that he had eaten bigger amounts of red beet salad since Fall 1955, without any intention, as a by-meal only, but he ate considerable amounts. In this time he gained body weight and he recovered. On February 11 he left the hospital, he was not disciplined, and systematical medicinal orders he did not obey.

From this case we learned, that the red beets might be ingested cooked, as a salad, without decrease in effect. However, for safety reasons we stood with the concentrate, which was prepared at low air pressure and low temperature.

4. D.G., a woman of 40 years of age, was hospitalized at March 10, 1957. She was ill since 3 months, and lost body weight rapidly. The fever increased to 38.5 degrees centigrade, we sensed cherry core sized knots in the breasts both and in the arm pit. The test excision showed a adenocarcinoma. The patient was very meager, the number of hemoglobin was 1,800,000, Hb 35%, the erythrocyte sedimentation rate was 135 mm per hour. We treated her with red beet concentrate, transfusions, Fe-pills, Neoperheparin injections. After 2 weeks the sensible tumor knots started to decrease, this process accelerated around the 26<sup>th</sup>, in the breasts they were not sensed anymore, here we could not feel any tumor, the lymph knots in the arm pit decreased in size to about ¼. In this time, the fever increased to 39.5 centigrade. The patient made a toxic impression, she did not eat enough, she vomited, the anemia increased. We assumed that the patient reached at this toxic level as a consequence of the fast decay of the tumor, similar to i.e. abdominal typhus treatment with too much Chloromycetin<sup>21</sup>, when the decay of the bacteries starts too fast. We wanted to rescue her with transfusions, but we could not get permission from her relatives. The patient was transported home at March 30, where she died.

In this case we understood the fast decrease of the tumors as an effect of the concentrate, which caused probably the toxicity.

5. Sz.J., a man of 74 years of age, was hospitalized at May 30 1957. Since two years he weakened and lost weight of 25 kg, down to 62.5 kg. Two weeks before he caught fever, at the time of hospitalization at 39.5 degrees centigrade, the erythrocyte sedimentation rate was 120 mm per hour, the x-ray picture of his chest is in picture 6. With some safety we diagnosed lung tumor, and we started the treatment with the concentrate. After a month the fever decreased, he got subferil, but he did not gain weight. In the mucus

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<sup>20</sup> An antibiotic first isolated 1943 by Albert Schatz, still in use.

<sup>21</sup> U.S. trade name for Chloramphenicol, an antibiotic, isolated by David Gottlieb, and introduced into clinical practice in 1949.

were no tumor cells anymore. Since the leukocytes increased from 13,000 to 19,000, we guessed that an abscess was developing inside the tumor. The x-ray picture showed the large, massive shadow unchanged. The test puncture recovered large amounts of pus, therefore we made a chest resection on July 24. The patient was brought back at July 30, his body weight was 55 kg, from time to time he was subfebril, the surgical area was not pus-filled, he received Penicillin, transfusions, and certainly the concentrate without interruption. His conditions stabilized, he gained strength, his appetite returned, his body weight reached 56.5 kg, then suddenly he attracted a profuse hemoptysis and died in some minutes. During the section we found wrapped around the right upper wing a large rough callus, in the upper part was an extended healed scar and a clean cave of the size of a green nut, in the connected bronchus we found one in several parts divided tumor of the size of a half bean, that was all of his tumor! The histological diagnosis was as follows: alveole epithelial cancer, among the cancer cells were numerous degenerative types (Priv.-Doz. Dr. Soos).

Despite the patient died on a very strong hemoptysis at the beginning of the clinical recovery, the section showed that there was nearly no tumor anymore, and on the remaining tumor were degenerative cells visible. We could not determine the size of the tumor at the beginning of the treatment, because it is sure that a part of the visible shadow in the picture is actually callus. However, it is very sure, that the tumor must have been larger, comparing to the one we found during the section.

6. T.J., a man of 70 years of age, developed as a side symptom on the face an epitheliom of the size of a heller<sup>22</sup>. The chef of the skin department considered it a skin cancer as I did, and recommended a radium treatment. The epitheliom was looking like a festering ulcer, partly crusted. We tried a compress with concentrate, we poured several times a day 1 – 2 ml concentrate on it, and fastened it on the face of the patient. After 5 days of this treatment the skin cancer was completely gone! For technical reasons we were able to take a photograph of his face only then, but to our great surprise there was no cancer anymore. Understandable, a histological test did not happen.

Based on the observations above one can conclude:

1. In red beets is a cancer inhibiting substance, about 1 kg of red beets contains the amount of this substance which is necessary to be effective for one day.
2. This active substance is relatively stable, the stomach metabolism and even cooking does not damage it, because it works if ingested as a salad, too, and even if the salad was cooked 1 to 2 hours with 100 degrees centigrade.
3. This active substance compensates probably the lack of another substance in the organism, which causes the cancer-like change of the tissue. We believe that, because the patients show signs of clinical recovery as long as they take the concentrate, in several cases we observed even complete clinical recovery, but if they did not take the concentrate regularly, they suffered remissions after 2 – 3 months. It would be interesting to test if remissions would occur if they would take

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<sup>22</sup> Little Hungarian coin at this time, about the size of a cent.

the preparation continuously; however, we were not able to pursue this test for financial reasons.

4. The patients, or, better to say, the tumors reacted on the treatment with red beets different, some showed signs of recovery with ingestion of 2.5 kg red beets, the most of them reacted positive on 1 kg. On this amount, there were different reactions as well.

Consequently, we deem the extraction of this cancer inhibiting substance of the red beets for very important. Important, because 1. the results of treatment with red beets are in no point worse than results of the application of the best known chemicals, such as Domagk E 39<sup>23</sup> and Tetramin<sup>24</sup> (Schulze, Wilhelm). These are chemical known substances with exact dosage. If the active substance of the red beets would be known, it would be possible to give supposedly much bigger amounts of this active substance to the patients, because we would not have to burden the stomach with the other beet constituents. It is possible that it would be a substitution therapy similar as with insulin, but the active substance of the red beets might be taken orally and is no new burden for the patient, even if he takes for some years pills daily; however, it is not excluded that there would be long-time effects, if the active substance is taken in larger amounts. 2. The active substance of the red beets is in all probability non toxic, without any unfavorable side effect, cheap, and is unlimited available.

#### Literature

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<sup>23</sup> Gerhard Domagk developed a quinone before 1954, which was introduced into clinical practice under the test number E39 by Bayer.

<sup>24</sup> See Dtsch Med Wochenschr. 1957 Sep 6; 82(35/II): 1465-8., SCHULZE W., [Preliminary report on the results of tetramin treatment of malignant tumors; clinical & morphological aspects.], [Article in German], PMID: 13473470