

### 3.3 Chemotherapy

Against the background of a scientific spiritual concept of the human being, anthroposophical medicine as an extension of the scientific medical approach must have the aspiration to also understand those therapeutic procedures that have a cytoreductive-corrective character, suppress disease processes and do not transform them. Chemotherapy doubtlessly has a definite prognostic value in particular forms of cancer.

However, for many other indications it should still be noted that, in spite of considerable staffing and financial measures that have been invested in this research, the benefit gained from chemotherapy is usually rather small. Thus, in the EBCTCG meta-analysis 15 years after CMF therapy, there is a remarkably small benefit in relation to the survival time for node-positive as well as node-negative breast cancer. Ten-year mortality can be reduced through cytostatic treatment by approximately 6% to 12% in women under 50 years of age and by 2% to 6% in women between the ages of 50 to 69. In relation to the nodal status, this results in a prognostic improvement in the 10-year survival time from 71% to 78% for women under 50 years of age with node-negative breast cancer and from 42% to 53% for a node-positive status. For women between the ages of 50 and 69, chemotherapy leads to an improvement in the 10-year survival time from 67% to 69% with node-negative status, respectively from 46% to 49% with node-positive status. Hai-beck et al, summarise it in their overview as follows: 'Adjuvant chemotherapy causes an absolute reduction of mortality of up to 8% after ten years in women under the age of 50 and approximately 3% in women between 50 and 70 years of age. In terms of these data, it should be taken into account that the taxanes were not yet included in the chemotherapies used.

While a small benefit can still be achieved with chemotherapy for breast cancer, palliative chemotherapy, that is, when metastasis has occurred, was not able to statistically achieve a prognostic improvement within the last 20 years in spite of the considerable extension of the therapeutic arsenal used. Survival mainly depends on age, grading, receptor status and the metastasis-free period. 'Between 1980 and 2000 there was no continuous improvement. For more than 40 years, literature has documented comparable, yet only slightly varying survival rates after an established metastasis of breast cancer.

From these numbers can be deduced that, after extensive information and

reference to subsequently outlined aspects, the patient should maintain a sphere of freedoms in the therapeutic decision. This should not be restricted by decision-making pressure and anxiety causing 'hints' about an otherwise unchecked tumours growth. Guidelines for oncology require in every case their 'adaptation' (Matthiessen) to an individual patient, his or her medical condition and values with regard to such profoundly intervening treatments.

3.3.1 The significance of chemotherapy for the effectiveness of the constituent elements.

The effects and side effects of numerous chemotherapies indicate impairments of the vitality organization.

The lift-inhibiting action on fast replicating tissues is obvious and part of the desired therapeutic effect. During the course of therapy, the physical organism can appear as if 'naked' and robbed of its supersensory covering due to the restricting effect on the etheric organism. The baldness that appears in numerous protocols reinforces this impression. This loss of a cover is expressed in the statement of a female patient: 'We all look the same'. It should be remembered in this context that the loss of hair signifies more than merely the temporary relinquishment of a usually familiar external appearance. The siliceous substance that connects the human being like a sense organ to the spiritual surroundings is related to hair and therefore indicates the spiritual meaning of hair.

On a soul level, the already mentioned Frequently occurring fatigue syndrome at times signifies, according to the assessment of patients and often in contrast to the assessment of oncologists, a higher degree of suffering than, for example, pains caused by the cancer.

Numerous chemotherapy protocols seem to push the upper constituent elements out of the organism. The etheric forces can only, to a limited extent, achieve fulfillment in the organism. Furthermore, a limitation of the mental opportunities for development can occur: patients complain about problems with concentration, difficulties with memory and thinking, changes in sensory perception such as hearing impairments, impaired sense of taste and sensory disturbances (polyneuropathy). Hence, alongside the somatic implications, the range of side effects indicates the dimension of the soul and spirit.

An impairment of cognitive functions can occur (chemo brain syndrome). The so-called cognitive fatigue [Cancer fatigue syndrome] can still continue long after the completion of chemotherapy. Some humans who maintain a meditative life often feel as if they have been cut off from the spiritual world. Especially in this situation, important questions are still open and waiting for an answer. For example, how does dying occur under chemotherapy? What are the associated inner experiences that patients describe as borderline experiences? What kind of near-death experiences are described in such a situation and does this result in indications of a changed detachment process of the person from his or her body? There are to date unpublished observations from nursing that, while caring for dying patients, report a difficult dying process under chemotherapy. The detachment from the body, which so often occurs within the scope of a febrile, inflammatory reaction and thus illustrates how the human body has now become alien and needs to be discarded by the inflammation, is possibly more difficult because of chemotherapy.

Another aspect leads to the substances used within the scope of chemotherapy. A major group consists of alkylating agents. For example, cyclophosphamide, chlorambucil, melphalan, busulfan and thiotepa belong to this group. Cyclophosphamide is closely related to another highly toxic compound and was developed from it: nitrogen mustard that was used as a poison gas during the First World War. The use of this substance — now 'defused' — presents a special obstacle each time and evokes fundamental considerations when evaluating this therapeutic option.

However, the individual chemotherapeutic agents require a differentiated observation. A generalizing judgement about 'chemotherapy' is in this case inadequate. The range of side effects varies widely and has different focal points in the threefold organism. Thus, we deal with undesirable drug effects in the region of the gastrointestinal tract (metabolism organization); cardiac and pulmonary side effects

can occur in the middle human being; the main undesirable drug effects in the nerve-sense organization are polyneuropathies and the mentioned cognitive restrictions.

However not only these side effects that are directly associated with therapy should be noted. In addition, the medium-term and long-term consequences of chemotherapy should be considered. Therapy-associated immunosuppression belongs to the medium term undesirable consequences of this therapeutic form. Even 12 months after the completion of therapy (breast cancer) several immunological parameters had not yet recovered. Rather unfavourable was the recovery of IFN- $\gamma$ , IL-2 and IL-4, as well as the lymphocyte proliferation and the N K cell activity [see also 3.3.2] Secondary neoplasms belong to the long-term consequences of chemotherapy that present a serious concern due to the achieved long-term survival, for example, in patients with Hodgkin's lymphoma.

These aspects must not lead to a fundamental rejection of chemotherapy. Rather, they demand a differentiated handling and a differentiated evaluation of various protocols and they illustrate the necessity to also talk with the patients about these problematic issues and complications that go beyond the physical side effects. This is particularly true against the background that some palliative indications for chemotherapy guarantee little prognostic improvement in terms of survival time and have certainly no curative claim. In this instance, an empathetic conversation with the patient is crucial. Against the background of an undeniably expected range of side effects, the chemotherapeutic treatment option is often rejected, due in part to very little absolute risk reduction and therefore a high NNT (amongst the most frequent tumours are, above all, the palliative disease stages of bronchial and pancreatic cancer, but also often adjuvant chemotherapy in postmenopausal breast cancer). An increasingly important environmental-toxicological burden should also be taken into account, especially against the background of the low efficacy. Under no circumstances should chemotherapy replace a conversation about the disease character, the continuing path of the patient through the disease and about his or her wishes and values.

### 3.3.2 Therapeutic support during chemotherapy

A supportive therapy is required when there is a justified indication for chemotherapy and after appropriate information. Above all, mistletoe therapy should be mentioned here because of the existing data from studies. It can already be administered prior to or immediately parallel with chemotherapy and can also be given i.v. (over one to three hours) after the appropriate agreements on therapy with the patient (the sac. application has been approved).

Further therapies are used, based on the occurring symptoms. Premedication prior to chemotherapy is usually administered with the inclusion of antiemetics (in particular for protocols with a high emetogenic potential). In mild forms of hyperemesis

- Nux vomica D4, D6 (Weleda) dil. 20-20-20 drops
- Nux vomica D4 (Weleda) amp. s.c. 1 to several times daily
- Nux vomica e semine D6 (WALA) amp. 1 to several times daily
- Nux vomica comp. (Weleda) compound 20-20-20 drops
- Ipecacuanha, ethanol. decocturn D4 (prescription 20-20-20 drops preparation [e.g. Apothelce an der Weleda]) dil. can be used. Loss of appetite is treated with bitter substances, for example
- Gentian lutea Rh 5% (Weleda) compound 20-20-20 drops
- Evzian Magentonikurn (WALA) 1-1-1 tsp
- Cichorium/Pancreas comp. (WALA) amp. s.c. 1-0-0.

For restrictions of vitality due to chemotherapy

- Prunus spinosa, summitates Ø (Weleda) mother tincture 20-20-20 drops
- Prunus spinosa, summitates Rh D3 (Weleda) dil. 20-20-20 drops

is recommended, if required together with

- Argentum met. praeparatum D6 (Weleda) trit. 1-1-1 pinch
- Thuja occidentalis Argento culta Rh D3 (Weleda) dil. 20-20-20 drops.

Thuja Argento culta has proven particularly valuable after radiation therapy. For disturbances of the warmth organization

- Solum Öl (WALA) several times daily as embrocation or oil compress has proven valuable. For strengthening the ensoulment of the organism, for hopelessness, depressiveness and dispiritedness
- Levico D1, D2, D3 (Weleda) dil. 20-20-20 drops  
and
- Hypericum Rh D3 (Weleda) dil. 20-20-20 drops  
also as
- Hypericum Auro cultum Rh D3 (Walded) dial. 20-20-20 drops  
or
- Levico comp. (WALA) amp. up to 1-0-0  
or
- Levico comp. (WALA) globuli velati 10-10-10

can be given. During chemotherapy other forms of therapy such as eurhythmy therapy and arts therapies should be continued, if possible. Particularly important on the part of nursing are external applications.

When nausea and loss of appetite are in the foreground, a

- YARROW LIVER COMPRESS: Put 1 heaped tbsp of the flowering herb in 1 l cold water, cover and boil for 5 min., leave covered for 10 min. After sieving, a golden-yellow solution for compresses is obtained.

for gastrointestinal symptoms

- OXALIS UPPER ABDOMEN COMPRESS: The inner compress is soaked with a compound of 6 ml Oxalis-Essenz (WALA) or Oxalis, Folium 20% (Weleda) tincture in 300 ml water (38-40°C), then wrung out and abdominally applied as well as covered with the outer compress, and when patients are chilly and insufficiently warmed
  - GINGER-EQUISETUM KIDNEY COMPRESS [- XXII. 4.1.1 Therapeutic aspects]
- or
- EQUISETUM KIDNEY COMPRESS: Put 1-2 heaped tbsp Herba Equiseti arvensis in 1L cold water, cover and simmer over a small flame for 10-15 min., steep for approx. 10 min. After sieving, the water is dark brown-green coloured.

are helpful, especially for chemotherapy with cisplatin. A major support is

- Rhythmic Massage in accordance with Ita Wegman, which is felt as decidedly beneficial according to numerous experiences.
- Oil dispersion baths

should also be mentioned in this context. Furthermore, patients can be offered

- Equisetum tea

for the stimulation of excretion. Mien a chemotherapy-induced polyneuropathy develops, the local application of

- Aconitum/Nicotiana comp. (Weleda) oily embrocation

rub in several times daily can be supportive.

In the case of a hand-foot syndrome, a therapeutic attempt with

- Imlan pur Creme (Birken AG).

is worthwhile.

### 3.4 Targeted therapies

In addition to cytostatic therapeutic principles, targeted therapies such as the antibody-based therapy and the impact on the intracellular protein metabolism by tyrosine kinase inhibitors and proteasome inhibitors play an essential role in the treatment of malignant tumours. They intervene more or less purposefully in the intra- and extracellular life processes, corresponding to the fast growing knowledge in molecular biology.

With the system of 'intracellular communication', an area is entered that is to a lesser extent assigned to ponderable materiality, than to intangible 'transmission of information'. In this respect, the ligand- receptor interaction belongs to the guiding and structuring qualities that modulate the cellular metabolic and synthesis pathways. Through these, supersensory regulating principles are carried into the etheric action, which, taken by themselves, are just as intangible as the written information.

The hormones and hormone-like acting compounds (e.g., growth factors) have been characterized in their metamorphic relationship to the nerve-sense system [Central organ of type 1 diabetes: the pancreas]. On a cellular level many of their receptors show tyrosine kinase activity (e.g., insulin, insulin-like growth factor I [[IGF-1] platelet-derived growth factor [PDGF], epidermal growth factor [EGF], transforming growth factor beta [TGFB], stem cell factor [SCF], fibroblast growth factor [FGF], hepatocyte growth factor [HGF] and vascular endothelial growth factor [VEGF]). Most receptors with tyrosine kinase activity are cell membrane-traversing proteins. Their connection to amino acid tyrosine associates them with the thyroid quality and, therefore, with the astral organization; their connection to phosphorus accordingly associates them with the Ego-organization that finds an instrument also in the fine ramifications of a phosphorus process (tyrosine phosphorylation).

As 'growth factors', the hormone-like acting factors regulate differentiation and pro-liferation and therefore they are instruments of structuring and formative processes that are carried into the anabolic life processes. A pathological activation of tyrosine kinases or also receptor tyrosine kinases expressed at high levels (e.g., HER-2 in breast cancer) with non-regulated signal transduction occurs in some tumours. The described 'autonomization' of cellular life processes and, therefore, the disintegration from the organismic connection is also found on this molecular level.

Whereas chemotherapy refers to proliferative growth and inhibits the etheric quality, the antibody-based therapies influence regulative 'system connections' that are linked with the astral organization.

Tyrosine kinase inhibitors (e.g., the monoclonal antibody Trastuzumab that is directed against HER-2-tyrosine kinase or the BCR-ABL tyrosine kinase inhibitor Imatinib) belong to the essential therapeutic principles that are used in oncology. They inhibit individual steps of a processual whole.

Through these approaches, monocausal interactions with the disease process are found without realizing its superordinate nature that synthesizes individual manifestations. Accordingly, the question needs to be asked — as is generally the case with mono-causal therapeutic principles — about the consequences for the whole organism that are caused by a change to the individual steps of a process.