



Micro-immunotherapy
International Medical Experience

Micro-immunotherapy & Cancer

Breast cancer

Prostate cancer

Leukaemia

Lymphoma

Other cancer types



Promote your body's anti-tumour immunity

A cancer diagnosis is shocking news that unfortunately many people receive in their lifetime. However, one is not completely defenceless against cancer. Through an integrated, multimodal treatment programme, much can be done to work towards a cure or remission or gain more quality of life. Micro-immunotherapy is one of the cornerstones in cancer treatment, as it supports the immune system in the defence against cancer cells.

The onset of cancer

“Cancer” is a group of diseases that are characterised by an uncontrolled proliferation of malignant cells destroying healthy tissue. These cells can also spread to other body sites and form so-called metastases¹.

Cancer cells frequently originate from healthy cells due to an alteration in their genetic material¹. Yet they may also form due to the overactivation of cancer-promoting genes or the inhibition of certain genes that protect against cancer, without there being any defect in the genetic material². Metabolic alterations as well play an important role³ in the onset of cancer. It is now widely known that all these processes are not only associated with hereditary, age-related or casual factors, but also lifestyle and environmental factors⁴.

Cancer cells possess specific characteristics which they benefit from, the so-called hallmarks of cancer^{5,6}. For instance, they can bypass cell death, a process which all cells undergo after a certain time, especially defective ones. Cancer cells can thus proliferate indefinitely. In addition, they can stimulate the body to form additional blood vessels towards the tumour in order to be optimally supplied with oxygen and nutrients required for their proliferation. What’s more, cancer cells are able to evade the immune response.

These are just three examples of the specific characteristics of cancer cells which allow them to proliferate unhindered in the body and invade other tissues.

Cancer cells and immunity

Immune cells are normally able to identify altered cells like cancer cells and destroy them before a tumour develops. This is usually the case in healthy people.

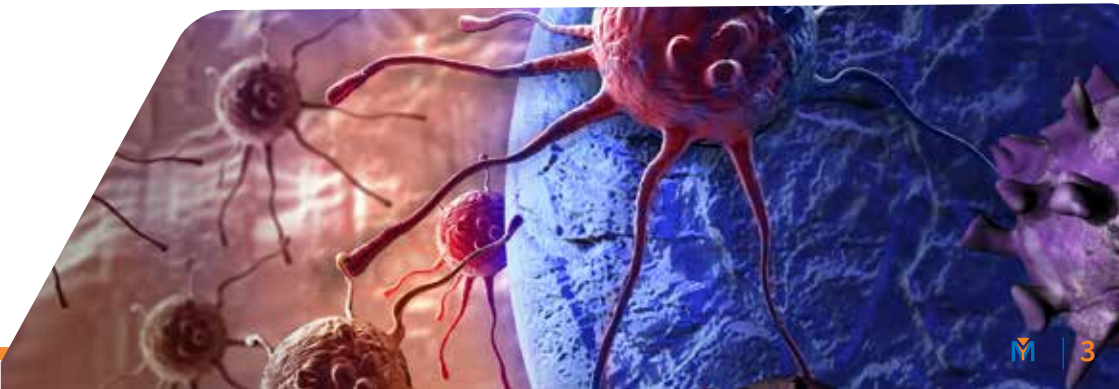
However, as mentioned before, cancer cells have developed various mechanisms to avoid being recognised by the immune system. Moreover, they can release certain messenger substances that weaken the function of antitumour immune cells and manipulate certain immune cells to release messenger substances for their own benefit. Thus, they manage to create an advantageous environment for themselves in which they are left “unbothered” by the immune system⁷.

The micro-immunotherapy approach

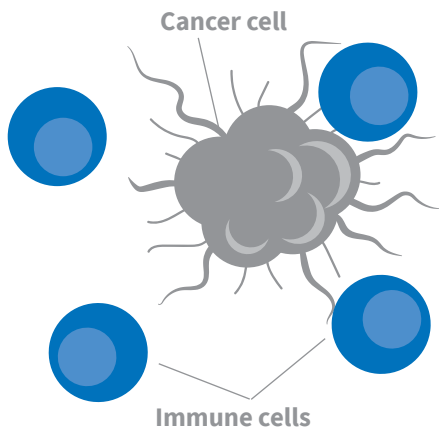
Micro-immunotherapy intervenes precisely at this point. Through the administration of immune messenger substances like cytokines in low doses, it aims to support the immune system in identifying and eliminating cancer cells. Micro-immunotherapy is directed at promoting the antitumoral immune response, limiting tumour growth and cancer cell resistance to programmed cell death, among other processes (Fig. 1).

Micro-immunotherapy acts in a targeted way so as to gently mobilise the physiological immune processes involved in the antitumour defence.

Micro-immunotherapy formulas are specifically adapted to each cancer type (Table 1).

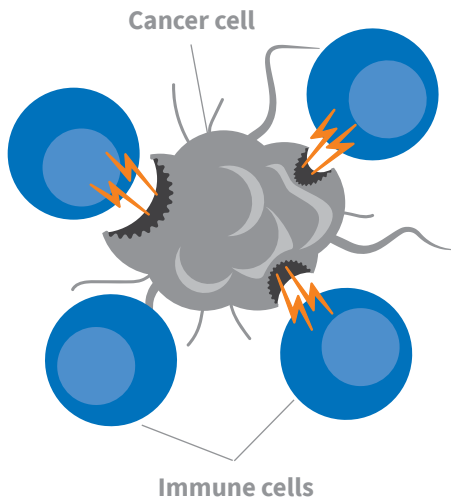


Immune disorders in tumours



Antitumour immune response ↓
Tumour growth and resistance ↑

Immunoregulatory objectives of micro-immunotherapy in tumours



Antitumour immune response ↑
Tumour growth and resistance ↓

Fig. 1.: Micro-immunotherapy approach in cancer

Solid tumours (e.g. breast cancer, colon cancer, prostate cancer)

Malignant neurological tumours

Myeloid leukaemia

Lymphocytic leukaemia

Hodgkin lymphoma

Non-Hodgkin lymphoma

Waldenström macroglobulinemia / Kahler's disease / plasmacytoma

Table 1: Application of micro-immunotherapy in different types of cancer

Micro-immunotherapy formulas are suitable for all age groups, they are easily taken sublingually and have a good safety profile given their low dosage. In addition, they are compatible with other treatments such as chemotherapy or radiotherapy. Micro-immunotherapy can also be combined synergistically with other complementary therapies like mistletoe treatment (Fig. 2).

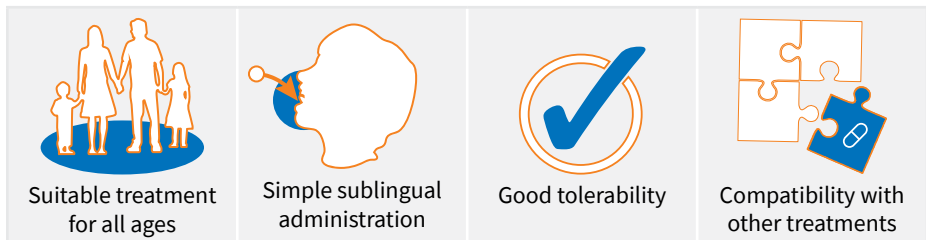


Fig. 2: Benefits of micro-immunotherapy

Important note:

It is not the aim of micro-immunotherapy to replace treatment approaches such as chemotherapy or radiotherapy, but to complement them synergistically. Conventional cancer therapy should therefore never be interrupted when immune support is initiated with micro-immunotherapy.

Micro-immunotherapy formulas can be applied in all stages of the disease: they can be used preventively (e.g. in case of familial predisposition), as a complementary treatment to chemotherapy or radiotherapy and as part of cancer aftercare and relapse prevention.

Co-treatment of oncogene viruses and psychological stress

Micro-immunotherapy provides cancer patients with help on further levels. On the one hand, it is known that certain viruses contribute to the onset and development of cancer⁸, the Epstein-Barr being particularly worthy of mention, as it is carried by most adults. This virus is usually kept under control by the immune system. However, in case of stress or low defences, it can evade immune surveillance and proliferate uncontrolled, causing disorders in the body at various levels. This may go along with different symptoms and, in the worst case scenario, contribute to the onset of severe diseases including cancer⁸. The human papillomavirus and certain hepatitis viruses share the same characteristics⁸.

Your health professional can diagnostically determine whether viruses play a role in your cancer disease and then co-treat them with micro-immunotherapy, thereby positively influencing the course of treatment.

On the other hand, a cancer diagnosis is of course a heavy blow. Subsequent treatment is also fraught with many uncertainties and is therefore psychologically stressful, which can in turn adversely affect immune function⁹. Micro-immunotherapy can support psychological balance via the immune system so that patients gain more strength to handle treatment.

Taken together, these interventions can positively influence the course of treatment and increase the quality of life of cancer patients.

Conclusion

Cancer patients can benefit from micro-immunotherapy on various levels, as it supports the immune system at every stage of the disease in a gentle, targeted and sustainable way. Moreover, viral burdens can be treated and psychological balance can be supported. Micro-immunotherapy is thereby not only an important cornerstone in cancer treatment but it also contributes to giving patients back their quality of life.

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