

Labor Dr. med. Ulrich Pachmann · Kurpromenade 2 · 95448 Bayreuth
 Dr XXXXXXXX

Bayreuth, XXXXXXXX

Your patient: XXXXXXXX
 Born: **09.06.1967**

Blood collection date: XXXXXX
 Our Lab number: XXXXXXXX
 Initial findings: XXXXXX, XXXXXX

Report on diagnostic findings on Circulating Tumor Cells (MAINTRAC)

Dear Dr. XXXXXXX,

Many thanks for sending your examination request regarding the detection of circulating tumor cells. Follow up.

Diagnosis:

- Rectal Adenocarcinoma, Initial Stage: IIIB, Initial diagnosis: 22.03.2017
- 2017: Chemotherapy
- 2017: Radiation Therapy
- since 11.07.17: Vitamin C IV, Curcumin oral (therapy break since January 2018)
Lektinol, Artesunate, whole body moderate hyperthermia
- 11/17: Complete Clinical Response

The automated microfluorimetric image analysis of the **epithelial cell adhesion molecule (EpCAM)**-positive cells with visual control (MAINTRAC) from **1 ml EDTA blood** resulted in following findings (detection limit is at 10 cells/ml):

Examination parameter	Number of potential tumor cells			Cell fragments
	In the sample (1ml)	In circulation (5l) (in millions)	In addit. examination: % of EpCAM-pos. cells	
EpCAM	150	0,75		numerous

The material for examination could be thoroughly evaluated.

Under complementary therapies (additional Artesunat, Hyperthermia), we now found a **slightly increased number of live, potentially malignant tumor cells circulating in the blood.**

In comparison to the previous findings from February 2018 the number of potential tumor cells has decreased 10-fold.

In addition, there were numerous specific cell fragments detected.

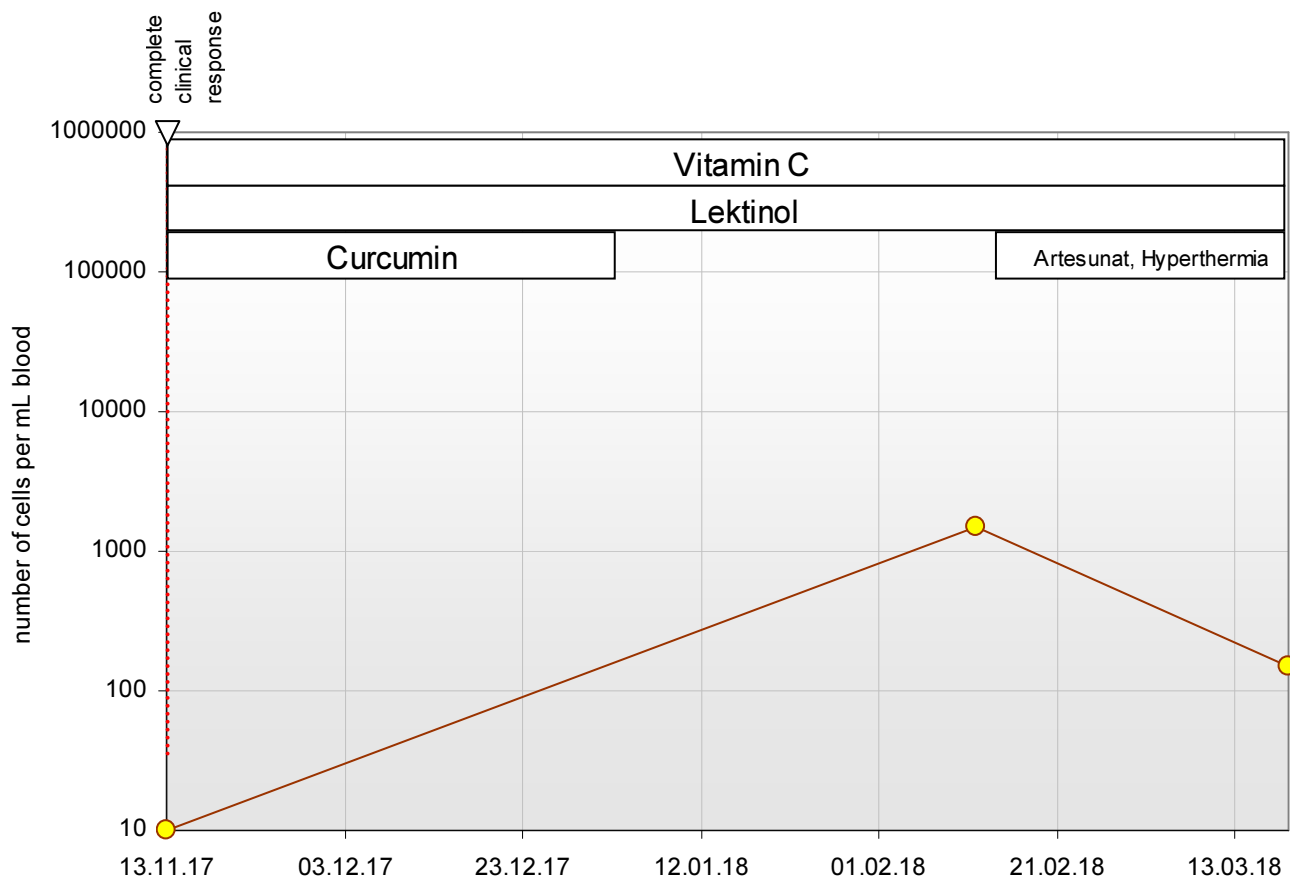
Specific cell fragments occur, for example, as part of an immune response and indicate damaged cells.

After Chemo- and Radiation therapy, there were no cells detectable. In February 2018 under complementary therapy, we could see an increase.

Now, over a period of more than 1 month under additional Artesunate and Hyperthermia, there is a significant decrease to a low cell level.

We recommend a control in 3 months.

Patient name Born: **09.06.1967** Date,



You now have a reference point, from which it can be determined, if and how the number of these cells changes in response to therapy.

With best regards,

Dr. med. Ulrich Pachmann

Prof. Dr. med. Katharina Pachmann

Daniel Lux