

# Analysis of blood parameters helps to establish prognosis for patients with brain metastases

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Laboratory parameters have independent prognostic impact in patients with newly diagnosed brain metastases

A new MedUni Vienna study conducted in the Comprehensive Cancer Centre (CCC) Vienna shows that certain laboratory results, which have previously not been used specifically for this purpose, can help to predict survival in patients with newly diagnosed brain metastases and to decide on the most appropriate treatment strategy. The study is being presented as part of the European Cancer Congress ECC2015, being held in Vienna between 25 and 29 September 2015.

Brain metastases are [secondary tumours](#) that have spread from primary tumours at other sites in the body (lungs, breast or skin, for example). Approximately 40% of all [patients](#) with metastasized cancer develop metastases in their brain. These are the commonest type of malignant brain tumour, are difficult to treat, often cause severe symptoms, such as intense headaches,

neurological problems or epilepsy and are often associated with a limited life expectancy. Nevertheless, there are some patients who survive for a long time, despite their [brain metastases](#). Anna Sophie Berghoff, University Department of Internal Medicine I at MedUni Vienna and Vienna General Hospital, member of the Comprehensive Cancer Center (CCC) Vienna and lead author of the study, says: "We asked ourselves whether there are any objective parameters that can provide us with a more stable basis for establishing an accurate prognosis for patients. This is not only important for estimating their life expectancy or for their inclusion in clinical studies but also for deciding on the most appropriate treatment for them."

## 1,201 patients studied

In their study, which included 1,201 patients with different primary cancers, Berghoff's team of researchers therefore analyzed blood parameters that had not so far been included in oncological prognosis scores. The results show that subnormal levels of red blood pigment (haemoglobin), blood platelets (thrombocytes), white blood cells (leucocytes) and albumin (the main plasma protein) and elevated levels of serum creatinine, lactate dehydrogenase and inflammatory markers (C-reactive protein; CRP) were associated with poorer survival from brain metastases.

Berghoff: "This study has enabled us to show that the investigated parameters have a strong, independent prognostic impact and are therefore to be regarded as objective parameters. This is particularly true of haemoglobin levels and the concentration of CRP and lactate dehydrogenase."

The researchers are now recommending that the last three parameters, in particular, be tested in

follow-up studies for inclusion in prognosis scores.

### **Patient day at ECC2015**

The European Cancer Congress (ECC) is one of the world's largest advanced training events in the field of oncology. As in previous years, the 2015 congress is not only aimed at qualified medical staff and oncology researchers but also at patients. At 3:45 pm on 29 September, Comprehensive Cancer Center (CCC) experts will summarize the results of the congress in straightforward, lay language and will present any new findings that are relevant to patients. The patient day will be held in the Messe Wien exhibition center and is being organized by CCC together with the "Living with Cancer" association.

However, ECC2015 is not just about presenting and discussing scientific findings. There will also be a [cancer](#) research run organized by the Institute for Cancer Research and this will take place on 26 September, between 10 am – 2 pm. Everyone is welcome to take part and proceeds go directly to the [cancer research](#) initiative, to fund promising new research projects.

**More information:** "Laboratory parameters have independent prognostic impact in patients with newly diagnosed brain metastases: analysis of 1201 cases." European Cancer Congress, ECC2015

Provided by Medical University of Vienna

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