Liver metastases from breast cancer

A new study makes it possible to select patients who will enjoy long-term benefits from surgery

Brussels, 22 December 2020 – Researchers at the Jules Bordet Institute, the Belgian reference centre for a comprehensive fight against cancer, have published an article, in the prestigious British research journal Nature Publishing Journal Breast Cancer, on surgery for liver metastases secondary to breast cancer. This study, carried out in cooperation with the Antwerp and Leuven University Hospitals, shows that the results of surgery on liver metastases from breast cancer depend largely on the histological type of these metastases. This is an initial study that should soon enable oncologists to select those patients who will enjoy long-term benefits from a surgical treatment of liver metastases.

When breast cancers progress, the development of liver metastases is frequent and represents a major cause of mortality among these patients. If these metastases are confined exclusively to the liver and are technically resectable, the surgical removal of these lesions can permit a very significant improvement in survival and, in certain cases, a cure. However, as yet there are no factors that make it possible to predict which patients will benefit from this surgery in the long term. The study published in Nature Publishing Journal Breast Cancer provides the first elements in answering this question.

Two types of microstructures in liver metastases

The study in question, initiated by Professor Donckier, Head of the Department of Surgery at the Jules Bordet Institute, is a retrospective study based on a sample of around 40 patients. This enabled researchers to observe that liver metastases secondary to breast cancer could represent two types of microstructures in the liver: a type where the cancer cells are surrounded by a rim of fibrous tissue (desmoplastic pattern) and another in which the cancer cells grow directly into the liver (infiltrating pattern).
The results of surgery were observed to be very significantly better when the metastases presented the desmoplastic pattern, permitting long-term survival, whereas all patients who underwent surgery for metastases of the infiltrating pattern experienced a return of the cancer cells very soon after the operation.

"In cancer surgery, the selection of patients is crucial. This is particularly true for surgery on liver metastases from breast cancer: at present there is no reliable way of identifying patients who will benefit from this intervention as opposed to those for whom such surgery will, unfortunately, serve no purpose. Our observations are promising. We hope that they will be able to contribute to the development of a new and more personalised therapeutic decision-making model that guides the choice of treatment according to the cancer biology in each individual case," explains Professor Donckier.

This initial observation offers new prospects for a better selection of patients for surgery, for a better understanding of the different ways in which breast cancer spreads and, potentially, for developing new therapeutic approaches.

You will find the article titled « Association between the histopathological growth patterns of liver metastases and survival after hepatic surgery in breast cancer patients » by clicking on the following link: https://rdcu.be/ccqxa

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Press Contacts

Institut Jules Bordet
Alexandra Cazan
GSM: +32 493 16 74 79
E-mail: alexandra.cazan@bordet.be
www.bordet.be

About the Jules Bordet Institute

An integrated multidisciplinary centre, unique in Belgium, the Jules Bordet Institute is an autonomous hospital devoted exclusively to cancer.

For more than 80 years, the Jules Bordet Institute has been providing its patients with diagnostic and therapeutic strategies at the forefront of progress to prevent, detect and actively combat cancer. The Institute pursues three missions: care, research and teaching. Its international reputation attracts the world’s leading cancer experts. Its spirit of innovation has enabled it to participate in the development and discovery of major new methods of diagnosis and treatment with the aim of bringing the findings to the patient as rapidly as possible.

In May 2018, the Jules Bordet Institute received official accreditation and designation from the OECI (Organisation of European Cancer Institutes) as a “Comprehensive Cancer Centre”, a quality label reserved for multidisciplinary cancer care institutions whose activities include research and teaching. This is a first for Belgium.

The Jules Bordet Institute is a member of the Iris and Université Libre de Bruxelles hospital networks. With its 160 beds dedicated exclusively to cancer patients, every year the Institute treats more than 6,000 in-patients, 12,000 out-patients and provides 75,000 consultations. To effectively meet future demographic and scientific developments, the Institute is planning...
to build a new Institute Bordet on the ULB university campus in Anderlecht, next to the Erasmus Hospital. Inauguration is planned for 2021.

www.bordet.be

About the Friends of the Bordet Institute

The Friends of the Jules Bordet Institute is a non-profit-making organisation with the sole aim of supporting and financing research at the Jules Bordet Institute, a cancer centre that is a reference in Belgium and abroad. As the largest private donor to the Bordet Institute, "The Friends" have donated almost 12 million euros in the past five years.

Considerable progress has been made in the field of oncology in recent years. Our understanding of the biological origin of cancer is growing all the time. Whereas 10 years ago we spoke of the microscopic analysis of tumours, today we speak of genetic profile, of sequencing, etc. Dozens of new molecules and markers have been developed, permitting the advent of personalised treatment. This progress has to a large extent been made possible through the extraordinary technological progress of recent years. But these new techniques that now enable us to probe the infinitesimally small are increasingly expensive.

For more than 50 years, the help of the "Friends" has enabled the Jules Bordet Institute to pursue its research using the most advanced technologies, thereby providing patients with the most innovative screening and treatment techniques. Techniques that generate life and hope.

By helping and supporting "The Friends of the Bordet Institute" you are participating in the many research programmes that they support and that all pursue a single aim: victory for life.

To find out more about the association The Friends of the Jules Bordet Institute, go to the website www amis-bordet.be
To find out more about the "101 tables pour la vie", go to the website www.101tables.com