Press Release
05 January 2024 10:33:00 CET

BrainCool AB (publ) and University of Freiburg announces start of pivotal clinical trial (COTTIS 2) for combined target temperature management and thrombectomy after ischemic stroke

BrainCool AB announced today the start of the pivotal (phase 3) clinical trial COTTIS 2 after approval from the German pharmaceutical agency ("The BfArM"). COTTIS 2 is an EU funded multicenter randomized controlled clinical trial of a total of 400 patients led by the University of Freiburg, Germany.

The objective of the COTTIS 2 study is planned to evaluate the efficiency of combining cooling treatment of patients undergoing thrombectomy. Two interim analyses are planned after 100 and 200 patients. The study follows the COTTIS 1 study (Ref. 1) which proved that this novel cooling treatment was safe and feasible, and associated with very strong data on survival with very good functional outcomes.

CEO Martin Waleij comments
- "The encouraging outcome of two-thirds of patients experiencing positive neurological recovery in COTTIS 1 reflects our dedication to advancing medical treatments. Our commitment is pivotal as we strive to make a tangible impact in the treatment of ischemic stroke.

Treating stroke remains one of the grand challenges of medicine. It is the second leading cause of death worldwide and the leading cause of neurological disability, greater than all dementias combined, including Alzheimer's. BrainCool's ultra early cooling solution is by far the most promising solution for protecting the brain after a stroke.

Securing national approval from BfArM in Germany to commence COTTIS 2 as a non-CE trial, based on MDR, marks an important milestone in our journey to make this treatment accessible to patients in the near future."

Prof Jürgen Bardutzky Principal Investigator the University Hospital of Freiburg comments
- "COTTIS aims to enhance patient outcomes by minimizing the occurrence and severity of brain damage associated with strokes. In COTTIS-1, 68% of patients treated with thrombectomy in combination with hypothermia achieved a favorable score of 0-2 on the mRS scale within 3 months. Comparatively, retrospective studies on only thrombectomy-treated patients at the University Hospital of Freiburg revealed a 35% rate of mRS 0-2 after 3 months when patients arrived directly at the hospital for the procedure, and 30% for those transferred from another hospital. The results suggest a remarkable achievement, with a doubling in the number of patients showing good neurological function compared to typical survivors."

Ref.
1. https://pubmed.ncbi.nlm.nih.gov/37612052/

About thrombectomy
Thrombectomy, a minimally invasive surgical procedure, involves the removal of blood clots from arteries, significantly improving outcomes for stroke patients. Thrombectomy stands as one of the most efficacious treatments in medicine, with a potential to prevent disability in one patient with stroke for every 2.3 patients treated. However, the majority of the patients undergoing thrombectomy still experience major disabilities.

About the COTTIS 2 study
The study participants are randomized into two groups, with 200 patients in each group. The intervention group will receive cooling treatment with BrainCool's products combined with thrombectomy and will be compared with a control group receiving the current standard treatment (thrombectomy with/without thrombolysis) of today.

The primary endpoint and objective of the study is to measure the proportion of survivors with good neurological function (mRS 0-2), with the aim of showing a statistically significant difference corresponding to an effective size difference of 14%, in terms of survival with good neurological function (defined as mRS 0 - 2).

Two interim analyzes are planned after 100 and 200 patients. The pre-specified cut-off value for ending the study earlier, requires a p-value of $p<0.0025$.

About the COTTIS 1 study
The thrombectomy technique employed in the early phases of ischemic stroke, coupled with peri-interventional procedures, offers an opportunity to apply hypothermia within the optimal time frame identified through initial animal experiments and subsequently a human clinical trial encompassning 22 patients - COTTIS 1.

RhinoChill® System facilitates the administration of hypothermia in the initial stages of ischemic stroke, preceding reperfusion, and during a specified period post-reperfusion. Consequently, it becomes feasible to impact crucial elements of the pathophysiological cascade following ischemic stroke and reperfusion.
The findings from COTTIS 1 strongly indicate that two-thirds of patients survived with good neurological recovery, suggesting a positive outcome associated with this procedure.

Contacts
For more information
Martin Waleij - CEO
+46 - 733 -93 70 76
E-mail: martin.waleij@braincool.se

About Us
BrainCool AB (publ) is an innovative medical device company that develops, markets, and sells leading medical cooling systems for indications and areas with significant medical benefits within the healthcare sector. BrainCool AB (publ) is based in Lund, Sweden, and its share is listed on Nasdaq First North Growth Market, named “BRAIN”.
Eminova Fondkommission AB is the company’s Certified Adviser.

Press Release
05 January 2024 10:33:00 CET

This information is information that BrainCool is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication, through the agency of the contact persons set out above, at 2024-01-05 10:33 CET.

Attachments

BrainCool AB (publ) and University of Freiburg announces start of pivotal clinical trial (COTTIS 2) for combined target temperature management and thrombectomy after ischemic stroke