Dr. Venkatesan: “Encephalitis really is a world-wide problem. The incidence of encephalitis in the US is about 1 in 10,000, what that means is 1 in 10,000 people will be affected by Encephalitis every year.”

Dale: “Dr. Arun Venkatesan is the director of the Johns Hopkins Encephalitis Center along with co-director Dr. Romer Geocadin. They’re researching ways that more lives can be saved from this illness characterized by inflammation of the brain.

Today on Brain Talk: saving those most at risk with encephalitis

Experts call encephalitis something of a mystery because both its origins and its progress can are often unpredictable. More people will suffer from it in the US this year than those who will develop a traumatic spinal cord injury or contract multiple sclerosis.”

Dr. Venkatesan: “So Encephalitis refers to inflammation of the brain and that inflammation can be caused by many different things, the conditions we typically associate with Encephalitis include infections such as West Nile virus, Herpes virus and many others, as well as auto immune conditions.”

Dale: “Dr. Romer Geocadin works in the center’s neurological critical care unit.

Dr. Geocadin: “So the patients actually that come into with neural ICU with Encephalitis over the years have really among the sickest. They are the patients that stay the longest, and we see a whole list of problems and complications.”

Dale: “The doctors say that a key to helping save lives is being able to identify and treat the most critical symptoms when someone arrives at an emergency unit. They’ve analyzed nearly 500 admissions and focused on the most serious cases of encephalitis at Johns Hopkins over the past decade.

Their data showed them that people most likely to die had one of three conditions that are in fact… reversible. The first condition, says Dr. Geocadin, involves continuous and prolonged epileptic seizures. Another is swelling of the brain.”
Dr. Geocadin: “When you have inflammation it is the swelling of the brain and the brain inside the skull once it swells it actually traps itself, and if it is severe, it strangles itself. So we have interventions right now to help that. We found that was one of the most strongest predictors.”

Dale: “But, according to Dr. Venkatesan, those patients most at risk of dying from encephalitis have a low number of cells responsible for blood clotting – or platelets.

Dr. Geocadin: “The sooner we can get these patients, potentially we will have a better chance of actually really improving the outcome; so it’s no longer a wait and see and hope and pray… that over all of those things that I just said, we can probably offer something.”

Dale: “The doctors say a quicker response to these at-risk patients with the right treatment is key, and so moving a patient from a small clinic to larger centers with the ability to deal with these conditions before they become irreversible is crucial.

Their findings come at a time when climate change and increased globalization are changing the nature of the disease.

Dr. Venkatesan: “We’re also seeing, for example, infections that cause encephalitis migrate across the United States in ways that we haven’t before. A great example of that is the migration of West Nile Virus Encephalitis, which began very locally in NY over a decade ago and has since spread very rapidly across the country.”

Dale: “For more information on encephalitis, log on to brainscienceinstitute.org. I’m Dale Connelly and this is Brain Talk from Johns Hopkins University.”

Learn more about Dr. Venkatesan and Dr. Geocadin

Johns Hopkins Encephalitis Center
The Encephalitis Center was formed to create a better process by which to diagnose these patients and to provide them with good neurocritical care.

Learn more about Encephalitis
Johns Hopkins Health Library

Listen to Dr. Arun Venkatesan talk about the Johns Hopkins Encephalitis Center

Read “Conditions Most Likely to Kill Encephalitis Patients Identified”
Posted on Science Daily, Aug. 20th, 2013

http://www.brainscienceinstitute.org