

JOINT MEETING OF RESEARCH GROUP ON DELIVERY OF NEUROLOGICAL SERVICES (RGODNS) OF WFN, CENTRAL AND EASTERN EUROPEAN STROKE SOCIETY AND INPC: PREVENTION OF STROKE

CRYPTOGENIC STROKE – CHALLENGES IN RECOGNIZING AND TREATING FABRY DISEASE

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The majority of ischemic strokes are due to cardioembolism (CE), large vessel atherothromboembolism, small vessel occlusive disease, or other unusual mechanisms. However, many ischemic strokes occur without a well-defined etiology and are labeled as cryptogenic. Other terms used in the literature to describe cryptogenic stroke (CS) include cryptogenous stroke and infarcts of unknown, uncertain, or undetermined cause (IUC). CS accounts for 30 to 40 percent of ischemic strokes in most modern stroke registries and databases.

By the TOAST classification, which is the most commonly used in clinical practice, CS (or stroke of undetermined origin in TOAST terminology) is defined as brain infarction that is not attributable to a source of definite cardioembolism (CE), large artery atherosclerosis (LAA), or small artery disease (SAD) despite extensive vascular, cardiac, and serologic evaluation.

In the past, about 40% of ischaemic strokes were judged to be cryptogenic, but with technical and medical advances this proportion has been as low as 18%. Study by Rolfs and colleagues' found out that 4% of patients with cryptogenic stroke had Fabry's disease.

The investigators predict that this value might correspond to a prevalence of about 1.2% in the general stroke population aged 18–55 years.

Fabry disease is an X-linked inborn error of glycosphingolipid catabolism resulting from deficiency of the lysosomal hydroxylase, alpha galactosidase A (AGLA). In humans, the disease is characterised by the systemic accumulation of the glycosphingolipid substrate, ceramide trihexoside (CTH) and ceramide dihexoside in tissue. Clinical manifestations of Fabry disease include chronic pain, kidney impairment, skin lesions, ocular opacities, vascular deterioration, stroke and cardiac deficiencies leading to premature mortality. Recently, enzyme replacement therapy (ERT) has become available.

Enzyme replacement therapy has given new hope to patients with Fabry's disease. Agalasinidase is recombinant form of the human enzyme α -Gal A, which is deficient in patients with Fabry disease. Data from clinical trials show a decrease in GL-3 levels following enzyme replacement, reversal in lipid tissue storage, stabilized or improved renal and cardiac function, and reduction or relief of neuropathic pain.