Korelasi kadar laktat darah dengan derajat fungsional berdasarkan nihss pada pasien stroke trombotik akut / Werda Indriarti, Wijoto

Werda Indriarti, author; Wijoto, author

Abstrak

Recently, lactate has been recognized as energy resources for neuron metabolism. According to ANLS hypothesis, glucose being particularly uptaken by astrocyte is eventually metabolized via glycolisis. Lactate produced in astrocyte is then released into extracelluler matrix and uptaken by neuron then converted into pyruvate that used in oxydative metabolism. That proccess is resulted more ATP than that of conventional theory. A few in vitro studies has demonstrated that there is an increased of ATP in neuron at hypoxic condition, agreed with ANLS hypothesis.

This study was aimed to learn the correlation between plasma lactate level and functional scale in acute thrombotic stroke patients. Forty patients with acute thrombotic stroke were admitted to neurology ward, dr. Soetomo General Hospital Surabaya in May until July 2013. Those patients had been examined for plasma lactate level using lactate-oxydase colorimetric method and functional scale by NIHSS (National Institute of Health Stroke Scale). The results showed that mean of age was 58,98 ± 11,91 years old, plasma lactate level was 1,51 ± 0,47 mmol/L, and mean of NIHSS was 6,83 ± 2,978. There was negative correlation between plasma lactate level and functional scale measured by NIHSS in acute thrombotic stroke patients, which was statistically significant (r = - 0,366 and p = 0,020).