

## **WHO PROTECTS OUR CHILDREN? - THE CURRENT SITUATION OF TBE/FSME IN LITHUANIA**

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The Baltic States are presently considered the most endemic TBE area in Europe with a range from 1000 till 2000 TBE cases each year. The highest TBE incidence rate in the world - 26.9/100 000 – was registered in Latvia in 1995 (?).

Children TBE cases usually comprise about 12% out of all TBE cases, being as low as 6% in Sweden and growing with the increasing endemicity of TBE in different areas. Currently the highest proportion of children TBE cases are reported in Russia, reaching in some regions up to 26%, and in the Baltic states, with the highest rate in Estonia.

The most affected group are school children: an average TBE incidence in children under 2 years of age in Lithuania is 0.6, in 3 to 6 year old kids 2.3, and in 7 to 14 year old children more than 6, what is ten times more than in children under 2.

TBE in children takes a milder course than in adults: according to the pooled data of European studies, TBE presents as meningitis more often in children in contrast to meningoencephalitis which is more common in adults.

A more aggravated course of TBE is seen nearly ten times more often in children above 7 years of age than in pre-school children. However, a few cases of severe encephalitis have been reported in as young as 1 and 2 year old kids.

Two youngest reported TBE cases in Europe are 6 weeks old girl from Switzerland and 3.5 month old girl from Austria. Severe course of TBE with seizures has been diagnosed in both cases.

Moderate sequelae of TBE in children are defined as mild, non-permanent complains of short duration, and severe sequelae are defined as permanent, heavily affecting neurological symptoms lasting longer than 3 months. Severe sequelae can be found in about 2% of children TBE cases.

A huge difference between 30% of long-lasting sequelae after TBE in adults and 2% in children rises a strong suspicion that post-TBE syndrome can be underestimated in children.

Neuropsychologic sequelae in children for the first time was investigated in the most recent German study. After TBE, children were more likely to have an impairment of attention and psychomotor speed. The results of this study support the hypothesis of the possible existence of post-TBE syndrome in children.

Nearly all cases of permanent sequelae after TBE in children in Europe, including two fatal children TBE cases, have been reported in children above 7 years of age. Severe sequelae after TBE seems to be very rare during the first 6 years of life.

During children immunisation campaign in Latvia, 75% of children under 18 permanently living in highly endemic TBE areas have been vaccinated (45 800 children in total). Nearly 5-fold decrease in TBE incidence in children in these areas was observed in 2003 after mass vaccination project had been accomplished. The same year, the incidence of TBE in children increased in 12% in the areas not involved in the mass vaccination campaign.