

# Distinct characteristics of childhood tick-borne encephalitis cases in Poland

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## Background and aims

- The clinical course and diagnosis of tick-borne encephalitis (TBE) cases differs in paediatric cases.
- Children have usually milder outcome, and are diagnosed less frequently, compared to adults.
- The aim of the present paper was to compare TBE paediatric with adult cases reported to the surveillance system in Poland.

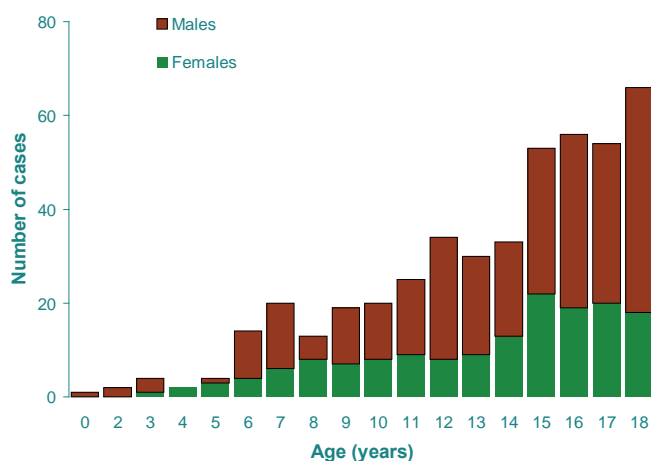
## Methods

- Individual surveillance forms on TBE from 1993 to 2007 were used in the study.
- Cases aged 18 years and below were described, and compared with adult cases in terms of clinical course and outcomes.
- Categorical variables were compared using chi-square test, continuous variables – using Wilcoxon test.

## Results

- A total of 3,296 cases were reported in 1993-2007, of which 465 (14%) were aged 18 years and below.
- The disease was more common among boys, and in older age groups (Fig. 1).

Figure 1. Childhood TBE cases by gender and age, Poland, 1993-2007.



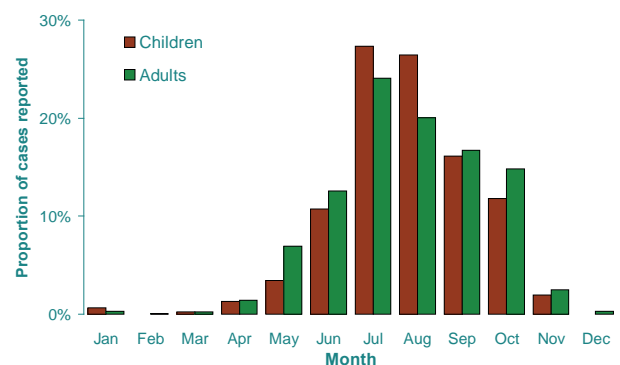
- Cases seen by paediatricians were more rarely remembering tick bites, and had generally milder symptoms reported (Table).

Table. Comparison of pediatric and adult TBE cases by exposure and clinical symptoms, Poland, 1993-2007.

	Children (n=465)		Adults (n=2831)		p value
	Cases	%	Cases	%	
Awareness of tick bite	274	58.9	1842	65.1	0.01
Symptoms					
fever	424	92.4	2661	94.0	0.06
headache	446	95.9	2673	94.4	0.07
meningeal symptoms	303	67.5	2084	74.6	0.01
sensory disturbances	11	2.6	97	3.6	0.3
loss of consciousness	30	7.0	375	13.9	<0.0001
focal brain symptoms	10	2.4	152	5.6	0.005
pyramidal symptoms	7	1.7	92	3.4	0.05

- In provinces classified as endemic, 388/2,875 (13.5%) cases were among children. In non-endemic provinces 77/421 (18.3%) cases were <18 years of age.
- Pediatric cases occurred more commonly in July and August, compared to cases in adults (Fig. 2).

Figure 2. Comparison of pediatric and adult TBE cases by month of onset, Poland, 1993-2007.



## Conclusions

- As described elsewhere, paediatric TBE cases do not occur frequently
- Pediatric cases have milder outcomes, compared to adults.
- It is however important to properly diagnose TBE cases also in younger age groups, as long-term sequelae can be expected.