## Supplementary Materials

**Figure S1**: Monthly distribution of 445 children with multiple erythema migrans.

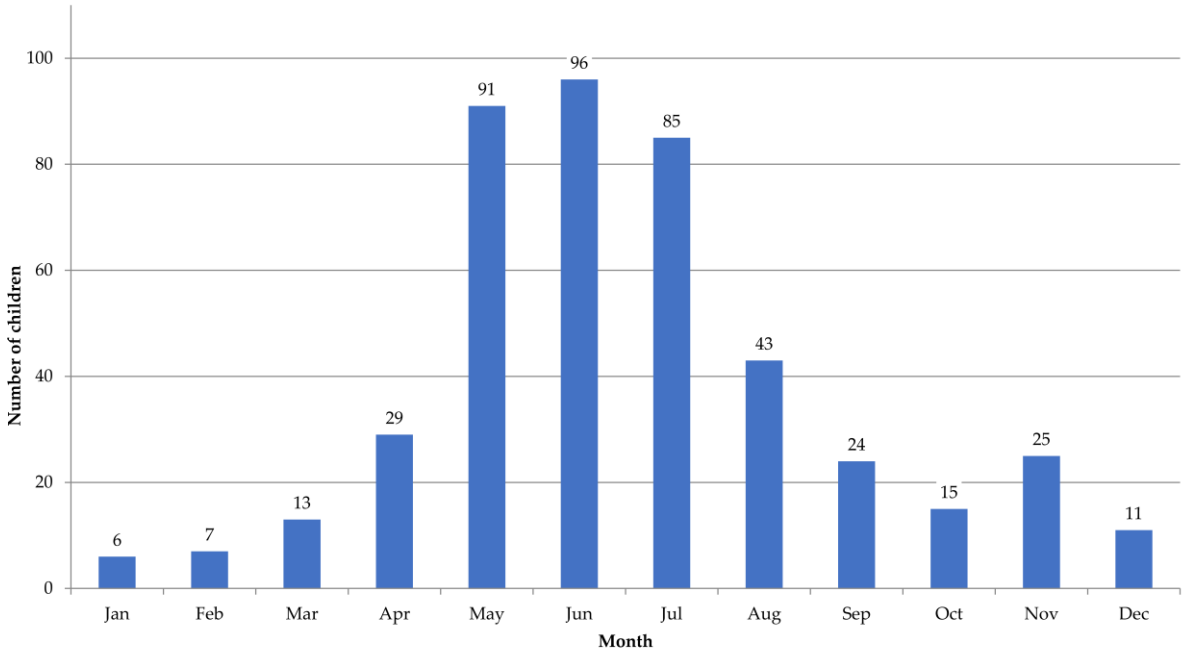


**Table S1**: Age-adjusted reference values for blood test results.

| Laboratory parameter / Age | < 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Leukocytes | 6,6 | 6 | 5,4 | 5,4 | 5,1 | 5,1 | 4,8 | 4,8 | 4,8 | 4,8 | 4,8 | 4,8 | 4,5 | 4,5 | 4,5 | 4,2 | 4,2 | 4,2 |
| | 15,6 | 15 | 13,8 | 13,8 | 12,9 | 12,9 | 12 | 12 | 12 | 12 | 12 | 12 | 11,4 | 11,4 | 11,4 | 10,8 | 10,8 | 10,8 |
| Platelets | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 | 410 |
| Neutrophils | 1,5 | 1,50 | 1,5 | 1,5 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 | 1,7 |
| | 8,7 | 8,7 | 8,5 | 8,5 | 8,5 | 8,5 | 8,1 | 8,1 | 8,1 | 8,1 | 8,1 | 8,1 | 7,9 | 7,9 | 7,9 | 7,9 | 7,9 | 7,9 |
| Lymphocytes | 3,2 | 3 | 2,2 | 2,2 | 1,8 | 1,8 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,2 | 1,2 | 1,2 | 1,2 | 1,2 | 1,2 |
| | 11,2 | 10 | 8,5 | 8,5 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 |
| Eosinophils | 0,05 | 0,03 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 | 0,02 |
| | 0,8 | 0,7 | 0,75 | 0,75 | 0,75 | 0,75 | 0,7 | 0,7 | 0,7 | 0,7 | 0,7 | 0,7 | 0,65 | 0,65 | 0,65 | 0,55 | 0,55 | 0,55 |
| Eosinophils % | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| | 5 | 5 | 5 | 5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 |
| AST | <1,22 | <0,86 | <0,86 | <0,86 | <0,78 | <0,78 | <0,78 | <0,69 | <0,69 | <0,69 | <0,69 | <0,69 | <0,69 | <0,62 | <0,62 | <0,62 | <0,61 | <0,61 |
| ALT | <0,98 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,68 | <0,48 | <0,48 | <0,48 | <0,48 | <0,48 | <0,48 |
| GGT | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,53 | <0,8 | <0,58 | <0,58 | <0,58 | <0,8 | <0,58 |

The upper and lower limits for blood test results are stated by age. ALT indicates alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase.

Age is expressed in years. Leukocyte, platelet, neutrophil, lymphocyte and eosinophil values are expressed in $\times 10^9$/L. AST, ALT and GGT values are expressed in μkat/L.

Source of reference values: Clinical Institute of Clinical Chemistry and Biochemistry, University Medical Centre Ljubljana.

**Text S1**: Clinical summaries of 2 children with multiple erythema migrans and Lyme neuroborreliosis

Case 1. A 6-year-old boy presented in June with 4 EM lesions 2 months after a recalled tick bite. Seven days before the first lesion, he had a 2-day febrile upper respiratory illness. Ceftriaxone was started at presentation. On treatment day 3, he developed headache and vomiting; several days later, neck stiffness was noted. CSF examination showed pleocytosis (55 cells/μL), protein 0.24 g/L, and intrathecal production of Borrelia-specific IgM. CSF enterovirus PCR and tick-borne encephalitis serology were negative. Blood and CSF Borrelia cultures were negative. He completed 14 days of ceftriaxone. Symptoms resolved, and no neurological complaints were reported at 3-month follow-up.

Case 2. A 9-year-old girl presented with right peripheral facial nerve palsy, headache, low-grade fever, and 3 EM lesions. Meningeal signs were absent. Because facial palsy with EM met institutional criteria for LNB, lumbar puncture was not performed. She received 14 days of ceftriaxone together with eye-protection measures and physiotherapy. Skin lesions resolved during treatment, and facial symmetry was almost normal at 3-month follow-up.

**Table S2:** Anatomical location of reported tick bites in children with multiple erythema migrans.

| **Body region** | **No. (%; 95% CI)** |
|---|---|
| Head and neck | 63 (43; 35—51) |
| Trunk | 44 (30; 23—38) |
| Upper extremity | 24 (16; 11—23) |
| Lower extremity | 25 (17; 11—24) |

Children could report tick bites at more than 1 anatomical site; percentages therefore sum to >100%.

**Table S3:** Laboratory values outside age-adjusted reference ranges in children with multiple erythema migrans.

| Laboratory parameter | Children with value outside reference range, No./N (%; 95%CI) |
|---|---|
| Leukocytes elevated for age | 17/432 (4; 2—6) |
| Leukocytes lowered for age | 16/432 (4; 2—6) |
| Platelets < 150 $\times 10^9$/L | 1/432 (0.2; 0—1) |
| Platelets > 410 $\times 10^9$/L | 47/432 (11; 8—14) |
| Neutrophils lowered for age | 19/429 (4; 3—7) |
| Lymphocytes lowered for age | 20/429 (5; 3—7) |
| Lymphocytes elevated for age | 2/429 (0.5; 0.1—1.7) |
| % eosinophils elevated for age | 80/429 (18; 15—23) |
| Eosinophils elevated for age | 30/429 (7; 5—10) |
| Eosinophils lowered for age | 16/429 (4; 2—6) |
| AST elevated for age | 43/400 (11; 8—14) |
| ALT elevated for age | 28/429 (7; 4—9) |
| GGT elevated for age | 13/429 (3; 2—5) |

ALT indicates alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase.