

Monitoring of Lyme borreliosis and meningoencephalitis agents in ticks

In 2006 the monitoring of up-to-date percentage of ticks infected with the aetiological agents of Lyme borreliosis and meningoencephalitis in the selected areas on the territory of Prague continued. The monitoring is purposefully aimed at the monitoring of activity of natural infection focuses under the Capital City conditions. The text is based on the chapter Monitoring of Lyme borreliosis and meningoencephalitis agents in ticks published in yearbook Prague Environment 2006.

(the text below is based on the chapter *Monitoring of Lyme borreliosis and meningoencephalitis agents in ticks* published in yearbook Prague Environment 2006)

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The tick specimens collecting was performed by flagging at the selected localities by workers of the Department of Epidemiology of the Public Health Authority of the City of Prague in the co-operation with personnel of the Municipal Public Health Authority, branches of Centre, South, West, East, and North. Testing was carried out by the Reference Laboratory for Lyme borreliosis of the SZÚ, Prague and the Reference Laboratory for Arboviruses of the Regional Public Health Authority in Ostrava.

Climatic conditions in 2006 again affected the biological development cycle of ticks, namely in summer months when the fluctuating weather conditions prevailed. The laboratories received the required number of tick specimens in every stadium of their development to carry out examination for meningoencephalitis (the basic number is 40 nymphs, 20 females, 10 males) while for testing for Lyme borreliosis samples with smaller number of tick specimens were received.

The results of the examinations for the presence of aetiological agent of Lyme borreliosis in ticks acquired by microscopic investigation showed average presence in 9.18 % pursuant to the written report of the National Reference Laboratory for Lyme borreliosis of the SZÚ, Prague.

Results of the continuous examination of ticks for the presence of tick-transmitted meningoencephalitis virus were positive for adult populations at the localities Prague 4, Kunratice – Zelené domky, where 10 females were found positive. Rest of the localities demonstrated negative results. Up-to-date results are available at the Internet pages of the Public Health Authority of the City of Prague (www.hygp Praha.cz).

The results demonstrate the prevention is necessary (as wearing suitable clothes, applying repellents, early removal of sucking ticks, including disinfection of the sucking place, and vaccination) if aforementioned localities are visited. The vaccination is carried out by the National Institute for Public Health or primary care physicians and the autumn season is the best time to get the first dose of the vaccine administered.

Tab. Percentage of ticks infected with aetiological agent of meningoencephalitis – localities provided by the Department of Epidemiology of the Public Health Authority of Prague in 2006

Locality	Date	Females	Males	Nymphs	Total
P8, Ďáblický háj	2. 5. 2006	50	40	20	110
results	5x10-neg.	2x20-neg.	20-neg.	110	
P9, Satalická obora	3. 5. 2006	14	20	40	74
results	14-neg.	20-neg.	40-neg.	74	
P9, Klánovický les	4. 5. 2006	10	13	50	73
results	10-neg.	13-neg.	50-neg.	73	
DDD – Divoká Šárka	22. 5. 2006	13	16	80	109

Locality	Date	Females	Males	Nymphs	Total
results	13-neg.	16-neg.	40-neg. 40-neg.	109	
P10, Hostivař	24. 5. 2006	20	20	50	90
results	2x10-neg.	20-neg.	50-neg.	90	
P4, Kunratický les	5. 6. 2006	11	27	85	123
results	11-neg.	27-neg.	43-neg. 42-neg.	123	
P4, Točná	6. 6. 2006	23	25	164	212
results	10-neg. 13-neg.	25-neg.	3x40-neg. 44-neg.	212	
P4, Milíčovský les	7. 6. 2006	23	14	54	91
results	10-neg. 13-neg.	14-neg.	54-neg.	91	
P4, Kunratický les – U Labutě	13. 6. 2006	17	22	49	88
results	10-neg. 7-neg.	22-neg.	49-neg.	88	
P4, Kunratický les – Globus	14. 6. 2006	55	54	59	168
results	5x10-neg. 5-neg.	2x20-neg. 14-neg.	40-neg. 19-neg.	168	
P4, Kunratický les – Zelené domky	19. 6. 2006	53	37	38	128
results	10-pozit!-(18,86 %) 3x10-neg. 13-neg.	20-neg. 17-neg.	38-neg.	128	

Source: HS HMP

Tab. Percentage of ticks infected with aetiological agent of Lyme borreliosis – localities provided by the Department of Epidemiology of the Public Health Authority of Prague in 2006

Locality	Date	Number of samplings	Females	Males	Nymphs	Total	% positive
DDD – Praha 1, Petřín	10. 5. 2006	1	3	5	21	29	
results		neg.	neg.	2 pos.		6,89	
P5, Radotín, Velký Háj	15. 5. 2006	1	16	19	23	58	
results		2 pos.	1 pos.	1 pos.		6,89	
P9, Horní Počernice	16. 5. 2006	1	3	12	1	16	

Locality	Date	Number of samplings	Females	Males	Nymphs	Total	% positive
results		neg.	2 pos.	neg.		12,50	
P7, Letná	22. 5. 2006	1	10	4	2	16	
results		1 pozit	neg.	neg.		6,25	
P10, Hostivař	24. 5. 2006	1	20	20	50	90	
results		2 pos.	1 pos.	5 pos.		8,88	
P6, Obora Hvězda	29. 5. 2006	1	5	7	58	70	
results		neg.	1 pos.	6 pos.		10,00	
P4, Kunratický Les	7. 6. 2006	1	34	25	127	186	
results		5 pos.	4 pos.	9 pos.		9,67	
DDD – P6, Divoká Šárka	14. 6. 2006	1	11	9	75	95	
results		3 pos.	1 pos.	6 pos.		10,52	
P4, Točná II	15. 6. 2006	1	9	14	81	104	
results		neg.	I pos.	neg.		0,96	
P3, Pražačka	15. 6. 2006	1	26	25	8	59	
results		3 pos.	2 pozit	2 pos.		11,86	
P5, Pod Kesnerkou	15. 6. 2006	1	8	5	6	19	
results		1 pos.	neg.	neg.		5,26	
P7, Stromovka	19. 6. 2006	1	6	7	52	65	
results		neg.	neg.	2 pos.		3,07	
PS, Barandov (Klukovice) Prokopák	19. 6. 2006	1	22	20	13	55	
results		3 pos.	2 pos.	1 pos.		10,90	
P4, Klánova – u dg. úst.	20. 6. 2006	1	7	10	5	22	
results		1 pos.	2 pos.	neg.		13,63	
DDD – Petřín, Praha 1	22. 6. 2006	1	5	2	15	22	
results		1 pos.	2-neg.	2 pos.		13,63	
P4, Kunratický les	11. 9. 2006	1	17	17	6	40	
results		4-pos.	2-pos.	6-neg.		15,00	

Locality	Date	Number of samplings	Females	Males	Nymphs	Total	% positive
P9, Klánovický les (za golfovým hřištěm)	12. 9. 2006	1	2	4	20	26	
results		1-pos.	4-neg.	2-pos.		11,53	
P4, Milíčovský les	13. 9. 2006	1	3	1	60	64	
results		1-pos.	1-neg.	4-pos.		7,81	

Source: HS HMP

Archive:

- [Monitoring of Lyme borreliosis and meningoencephalitis agents in ticks \(2005\)](#)