

FRÜHSOMMER MENINGOENCEPHALITIS (FSME, TICK-BORNE ENCEPHALITIS)

1 General

This condition is a viral meningoencephalitis transmitted by ticks. The disease is endemic in the rural forested areas of many central European countries (Austria, Switzerland, Southern Germany, Hungary, the Czech Republic, Slovakia, Poland, ex-Yugoslavia, ex-USSR, Bulgaria, Rumania, etc.). The Austrian Government in fact officially alerts inhabitants and tourists via the pharmacists. In exceptional cases this disease is also transmitted by ingestion of unpasteurized goat's or cow's milk.

The risk is seasonal: from spring to autumn (from April to October).

The disease is usually mild. The risk of severe disease is estimated at 1 in 500-1200 infected tick bites. In severe disease, there is a possibility of fatal outcome (1%) and neurological sequelae (10%). In the ex-USSR, especially in Siberia, there exists a variant of this disease with a high mortality rate (i.e. R.S.S.E. or Russian Spring Summer Encephalitis).

2 Prevention

2.1 Vaccination

- The vaccine FMSE-Immun® is based on killed virus. Three intramuscular injections of 0.5 ml (1 to 3 months between the first injections, and 9 to 12 months between the last injections) give 98% protection. Repeat vaccination should take place every 3 years (1 booster injection).
- A single injection gives only 75% protection after 14 days, which is inadequate. It is therefore best to administer a minimum of 2 injections, normally with an interval of 1 to 3 months between injections, or if there is insufficient time, with an interval of 14 days (protection of 90%). The vaccine has to be ordered from the manufacturer. A certain delivery time must be reckoned with. The delivery time should be allowed for when calculating the injection schedule. The vaccine also gives protection against the Siberian variant.
- At present the indication for vaccination is very limited. Vaccination can be indicated for naturalists and tourists (campers, walkers and hikers) who go in endemic zones into wilderness areas for prolonged periods. It is best to first consult a vaccination centre about the indication.

2.2 Treatment

- Vaccination after a possibly infected tick bite can no longer prevent infection, and is therefore useless.
- It is often possible to get local treatment with specific immunoglobulins. Their efficacy is certainly not 100% but around 60-70%. They should be administered within 96 hours after infection. Later administration of gamma-globulins is useless and can even have a negative effect on the course of the disease. Immunoglobulins are contraindicated in children under 7 years of age.