



TBE vaccination among the ageing: a randomized, controlled, open-label study on immunogenicity of FSME-Immun®.

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Background

Immune response to vaccinations declines with age. Data on the immunogenicity of TBE vaccines among the ageing are limited. We explored the immunogenicity of an inactivated TBE vaccine, FSME-Immun®, among adults of different age groups.

Methods

We enrolled 150 Swedish adults aged ≥ 50 years to a randomized, controlled, open-label study on primary vaccination with a TBE vaccine, FSME-Immun®. The vaccine was provided for three groups of volunteers according to one of three schedules: the standard three doses (on days 0, 30, 360), or one of the two four-dose schedules (on days 0, 7, 21, 360 or 0, 30, 90, 360). Titers of neutralizing antibodies were evaluated at different time points. A NT titer of ≥ 10 was considered protective.

Results

We will present in detail the seroprotection rates in the three groups after completing the standard three-dose primary schedule or one of the two different four-dose schedules. The data will be presented separately for those in the age group 50-59 years and for those ≥ 60 years of age.

Conclusions

The immunogenicity of FSME-Immun® declined with age. We found that with declining age, the standard three-dose schedule was insufficient, while adding a fourth dose improved the immunogenicity substantially.