

Streszczenie w języku angielskim

Ticks transmit several pathogens and seem implicated in the production of specific IgE antibodies to alpha-1,3-galactose (α -gal sIgE). They cause delayed and immediate allergy to mammalian meat as well as medication including antivenoms, vaccines and monoclonal antibodies.

We assessed the prevalence of α -gal sIgE in forest workers and healthy controls in the Podlasie voivodeship, north-eastern Poland; the relationship between α -gal sIgE and allergy to α -gal containing products; the correlation between α -gal sIgE and anti-Borrelia burgdorferi and anti-tick-borne encephalitis virus (TBEV) antibodies; the relationship between α -gal sIgE and markers of infection with lesser-known pathogens transmitted by ticks such as Anaplasma phagocytophilum.

Our study confirmed high frequency of asymptomatic α -gal sensitisation in Polish forest workers and healthy controls in the area endemic for I. ricinus ticks and infections transmitted by them as well as a correlation between tick bites and specific IgE against α -gal.

However, there was no relationship between the type of pathogen transmitted by ticks and sIgE antibodies against α -gal. Further studies are required to understand the pathomechanism of AGS and the factors contributing to the progression from asymptomatic α -gal sensitisation to α -gal allergy / α -gal syndrome.