

## **Long-term Chikungunya infection clinical manifestations after an outbreak in Italy: a prognostic cohort study.**

Moro ML, Grilli E, Corvetta A, Silvi G, Angelini R, Mascella F, Miserochi F, Sambo P, Finarelli AC, Sambri V, Gagliotti C, Massimiliani E, Mattivi A, Pierro AM, Macini P; Study Group "Infezioni da Chikungunya in Emilia-Romagna".

### **Source**

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### **Abstract**

#### **OBJECTIVES:**

Following a Chikungunya (CHIKV) outbreak in Italy, a cohort study was conducted to describe the infection long-term clinical course and outcome.

#### **METHODS:**

Persons identified through active and passive surveillance as confirmed or possible CHIKV cases during the outbreak were enrolled and interviewed by trained public health nurses, between 4-5 and 12-13 months following the acute stage. Patients reporting persistent clinical symptoms were evaluated by rheumatologists. Serum samples were obtained and anti-CHIKV specific IgG and IgM immune responses detected. Only confirmed cases who completed the follow-up were analysed.

#### **RESULTS:**

Out of 250 patients, 66.5% still reported myalgia, asthenia or arthralgia (most frequent sign) after 12 months. Functional ability, measured by the ROAD index, was more impaired for lower extremities (3.75; Inter Quartile Range - IQR 4.4), and the activities of daily living (average 4.2; IQR 5). Variables independently associated with the presence of joint pain at 12-13 months were increasing age, and history of rheumatologic diseases). Elderly, females, and persons with history of rheumatologic diseases had higher anti-CHIKV IgG titres at 12-13 months.

#### **CONCLUSIONS:**

This study confirms, in an unselected population, that the long-lasting burden of CHIKV infection is significant.