P234

VIROLOGIA

IMMUNITY AGAINST RUBELLA IN THE AREA OF CREMONA: EVALUATION OF CHANGES IN SEROPREVALENCE OF ANTI-RUBELLA IGG ANTIBODIES

E. Mainardi [1], L. Ferrari [1], S. Rizzardi [1], V. Trioni [1], R. Casnici [1], G. Mazzei [1]

[1]*Laboratorio di analisi chimico cliniche e microbiologiche. ASST di Cremona-Ospedale di Cremona.*

INTRODUZIONE

Serological surveillance is an important tool for the evaluation of vaccination programs.
The study was carried out in the clinical laboratory of Cremona hospital in order to monitor immunological profile in the population affering for routine diagnostic testing from years 2013-2018.
In addition the study focused on the seroprevalence of anti rubella IgG in young people in particular young female to understand future epidemiological trends.

METODI

12953 subjects, over a 6-year period (2013-2018), were analysed for IgG anti-rubella antibodies; serum samples were tested for anti-rubella virus IgG using the LIAISON Rubella IgG chemiluminescence immunoassay (CLIA), a quantitative method (Diasorin, Saluggia, Italy).
Samples with IgG antibodies activities above the cut off of 7 IU/mL were considered positive; 325 borderline sera (2,5 % of the sample) were included in the elaboration of seroprevalence.

RISULTATI

Seroprevalence of anti rubella IgG trough the years was: 2013: 91,21%; 2014: 90,09%; 2015: 89,97%; 2016: 92.01%; 2017: 91,17 %; 2018: 92,81%.
Entering into the detail of the last year examined we observed a discouraging data.
When we process the data according to age groups we see how in the 0-16 age group the seroprevalence is showing a worrying suboptimal coverage of 85.6%. Moreover in the 0-16 female group IgG positive were 84% vs 86,5% in the male group.
Also the fertile age range between 17 and 50 reaches 92.5% of coverage still below the 95% safety limit, only the >51 years group show a higher percentage of subjects immune for rubella reaching 97%. Moreover foreigners have a lower percentage of subjects immune for rubella compared to Italians: 87,5% vs 92,5%.

CONCLUSIONI

The first observation concerns the total seroprevalence data which, even if it seems to improve over the years, in our populations achieving a suboptimal coverage in the last year of 92,81% (95% CI 91,93-93,69) compared to the goal of >95%.
Previously study (2014) show national coverage assessed in children aged 24 months was 86,69%; another epicluster survey conducted on 2008 rubella vaccination coverage was 75% in 16 year-old adolescents.
Our data seem to follow the 10 years ago situation.
The present study has some limitations because data were collected retrospectively and a bias in the selection of patients is possible, however this study allowed us to know the state of vaccination coverage of the population affering to the Ospedale Maggiore di Cremona and we observed a worryng drop in seroprevalence IgG rubella antibodies in particular in young female.
ICONA working gropu. ICONA 2008: indagine di copertura vaccinale nazionale nei bambini e negli adolescenti. Rapporti ISTISAN 09/29 Available from: http://www.iss.it/binary/publ/cont/09_29_web.pdf.