Rheumatic fever: a disease still to be kept in mind

Sir, We recently reported on the incidence of ARF in a region of Central Italy (Abruzzo) between 2000 and 2009. The detected 4.1/100,000 incidence rate led us to conclude that ARF is far from being eradicated [1]. Interestingly, we found an increased number of cases from the year 2006–2007, suggesting a potential new outbreak, likely due to the reappearance of certain rheumatogenic serotypes. Although cases of ARF are particularly frequent in developing countries, previous studies have reported focal outbreaks of ARF even in industrialized countries, both in the USA and in Europe [2,3].

Recently, we were able to replicate our previous findings [1], by performing a similar data collection in another region of central Italy (Marche), with a similar population, and using the well-validated recapture method, which consists in the collection of information from two independent sources: hospital and general practitioner records. The study was approved by the ethics committee of the University of Chieti. Between 2007 and 2011, we detected 43 cases of ARF, corresponding to an overall incidence rate of 3.2/100,000/year. The incidence rate was similar between boys and girls (54.8% vs 45.2%). Cases were diagnosed at a mean age (±S.D.) of 8.48 (2.36) years. Only two cases occurred before the age of 5 years (4.6%), in line with the findings of Tani et al. [4]. These data confirmed a potential outbreak of ARF during recent years and reiterate the concept that the disease is far from being eradicated from our country and therefore physicians still need to keep it in mind.

A frequency of carditis as high as 76.2% was identified in the current surveillance, which was even higher than in our previous report (48.9%), further underlining the negative impact of the disease on the cardiac system. Rheumatic heart disease (RHD) is a serious complication of ARF, associated with a significant burden in terms of morbidity and mortality [5]. A potential explanation for the high prevalence of RHD we found might be the more extensive implementation of echocardiographic screening over recent years, which has significantly improved the detection rate of cardiac structural abnormalities. In fact, cardiac US assessment has been shown to increase the rate of detection of subclinical carditis by up to 10 times when compared with clinical examination alone [6]. Another possible explanation for the high prevalence of carditis seen in our study might be a specific genetic predisposition to this complication of our population. Whichever is the cause of the reported high number of cases of carditis, this finding underscores the importance of an accurate cardiac evaluation in young patients with ARF, in order to detect early cardiac signs that could help in the implementation of an appropriate treatment strategy and a specific follow-up, to avoid long-term cardiac sequelae. With regard to other known ARF complications, the prevalence of chorea (7.1%), joint involvement (52.4%) and residual chronic heart disease (45.2%) was similar to that of previous reports [1,7].

Taken together, these data strengthen the belief that ARF might be more common than previously thought among low-risk children in industrialized countries and cardiac complications remain a serious threat. We believe that the implementation of national registry programmes could be a successful strategy to reduce the impact of a preventable disease, such as ARF and its related complications.

Rheumatology key message

- Rheumatic fever still occurs in developed countries and represents a threat due to cardiac sequelae.

Disclosure statement: The authors have declared no conflicts of interest.

Luciana Breda¹, Eleonora Miulli¹, Valentina Marzetti¹, Francesco Chiarelli¹ and M. Loredana Marcovecchio¹

¹Department of Pediatrics, University of Chieti, Chieti, Italy. Accepted 23 January 2013

Correspondence to: Luciana Breda, Department of Pediatrics, University of Chieti, Via Vestini 5, 66100 Chieti, Italy. E-mail: luciana.breda@tin.it

References


