

## Brief Report

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# Innocent murmurs: the perception of the parents versus that of the child

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**Abstract** Innocent murmurs in childhood are common, and often they do not reflect cardiac disease. We have performed a prospective review, by means of a questionnaire, to clarify the parental perception of the innocent murmur identified in their child. Whenever possible, depending on age, we also sought the input of the child.

Of a cohort of 63 infants and children with innocent murmurs, a response was obtained from 40 parents and 8 children to an initial questionnaire, with 26 parents replying to a second questionnaire a year later. No parent reported any symptoms in their children, or had imposed any restrictions. Of the parents, however three sets considered regular review was necessary. We conclude that the diagnosis of an innocent murmur by a paediatric cardiologist, aided by investigations including cross-sectional echocardiography, and an opportunity for explanation and reassurance, led to the child being treated normally.

Keywords: Innocent murmur; childhood; perception; parents

**I**NNOCENT MURMURS ARE COMMON IN CHILDREN. Although these murmurs are of no significance, in that there is no abnormality in the heart, some parents still perceive that there is “something wrong”, and may restrict their child from normal activity. Thus, McCrindle et al.<sup>1</sup> reported that four-fifths of parents thought that most heart murmurs in children were harmful and caused anxiety, highlighting the need to ascertain the parental understand of the diagnosis, as that may influence the management of their child. There is also a significant association between ongoing parental concern where parents are less than satisfied with the interview,<sup>2,3</sup> emphasizing the importance of good communication between the doctor and family. Some suggest that a follow up visit with the primary care physician may correct any potential misunderstandings.<sup>4</sup>

Despite initial acceptance of the reassurance, doubts may develop, with recurrence of symptoms at times of stress, coincidental publicity about the potential

cardiac condition raising concerns about the reliability of the initial evaluation.<sup>5</sup> Indeed, some physicians may decide not to inform parents of the existence of an innocent murmur so as to avoid possible parental anxiety.<sup>6</sup>

Recognition of the concept of so-called “cardiac non-disease” has highlighted the practice of normal activities being restricted, the parents believing there to be a problem despite the heart being normal. While less educated parents were reported as tending to impose more restrictions, a more important factor seemed to relate to the advice given by the physician, especially if such advice was unclear.<sup>7</sup>

Our study was designed to document the perceptions of parents and their children with innocent murmurs, following the initial consultation and again 12 months later. In addition, we attempted to determine whether that perception altered the handling by the parents of their child.

## Subjects and methods

As part of an earlier prospective study on innocent murmurs,<sup>8</sup> the understanding of the parents and their child was surveyed by means of a questionnaire. The parents were those seen by paediatric cardiologists in

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an outpatient and/or private setting, over a period of 3 months. At the initial consultation, the attending cardiologist provided an explanation of innocent murmurs. The parents, and also the child of over the age of 7 years, were asked to complete a questionnaire to record their understanding of the significance of the "innocent murmur". Approximately 12 months later, a further questionnaire was forwarded to the same group to determine their ongoing perception of the innocent murmur, and how it had influenced their handling of the child.

## Results

We enrolled 63 patients over the period of 3 months, all with innocent murmurs. Only 40 parents, and 8 of the children who were aged at least 7 years, responded to the initial questionnaire. Of these parents, 26 subsequently answered the second questionnaire 12 to 30 months later.

None of the parents recorded any symptoms in their children. Nor did any parents impose any restrictions on their child. Most of the parents, 22 out of 26, understood and accepted that no review of their child was necessary. Three parents, however, considered that review was needed every few years, while another said that review was needed for ongoing "peace of mind".

## Discussion

The perception of these parents that their child had a normal heart persisted at least over the 12 month period following the initial consultation. In contrast, 11% of the initial sample of 40 who responded to the first questionnaire had described symptoms in their child prior to them initially being examined, including palpitations, chest pain, and tiredness and tightness in the chest.<sup>8</sup>

Our findings contrast with those of Mayou,<sup>9</sup> who found that one third of adults attending a cardiac

clinic, having been told that there was nothing wrong with their hearts, expressed fears about cardiac disease three months later. It is possible, of course, that only those who were reassured of the long-term outcome in our population replied to the second questionnaire.

Our findings would suggest, nonetheless, that the explanations given following examination by a paediatric cardiologist, coupled with appropriate investigations including and especially cross-sectional echocardiography, together with an opportunity for the parents and child to ask questions of the paediatric cardiologist, led to the desired results. No restrictions were placed on the child, and no symptoms were subsequently reported. Cardiac "non-disease" did not appear. We are unable to say whether an examination by the paediatric cardiologist itself, without any investigations, may have produced a similar result. The normal investigations seemed to add weight to the opinion of the cardiologist.

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