Letter to the Editors

***In vitro* fertilization and childhood retinoblastoma**

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I read with interest the paper by Bradbury and Jick [1] in the August 2004 issue of your journal. These authors are to be commended for their attempt to study the possible association of *in vitro* fertilization (IVF) with the occurrence of retinoblastoma in these assisted reproductive technology (ART)-born children.

However, their far-reaching conclusion that their data 'provide some reassurance that children born as a result of IVF are not at markedly increased risk of retinoblastoma' may be misleading. These authors observed 0 cases of retinoblastoma among 176 children conceived by IVF and compared this observation with '24 cases of retinoblastoma diagnosed before age 5 years among 358 094 children not conceived by IVF'. Although of some interest, these data cannot be reassuring. The incidence of retinoblastoma worldwide is around one case per 15 000–20 000 live births. Thus, prospective examination of a few thousand IVF-born children followed for a period of 5 years has to be carried out before any 'reassuring' conclusion can be issued.

Our original observation of the first IVF-born baby with retinoblastoma published in 2001 was detected when we prospectively examined 47 ART-born children [2]. Following our publication, awareness of possible association was stimulated and additional cases were unveiled [3–5]. Indeed, concerns arose following the publication of Moll *et al.* and the estimate of an increased risk ratio of 4.2–6.7 for IVF-born babies to develop retinoblastoma. The various aspects of the possible association of IVF and retinoblastoma and the possible epigenetics influence have been discussed [6].

At present, it must be stressed that the issue of a possible association between ART and the occurrence of retinoblastoma is far from being resolved. Caution and awareness on the one hand and avoiding unnecessary worries on the other hand are mandatory at this stage of our knowledge.

Therefore, conclusions derived from any important observations have to be in line with the data. Authors of papers writing on subjects of utmost importance which are at the 'eye of controversy' should be even more careful in the assessment of their data and the derived conclusions. The fact that no retinoblastoma was observed in 176 live IVF-born babies during a period of 10 months cannot serve as the basis for 'providing some reassurance that children born as a result of IVF are not at markedly increased risk of retinoblastoma'.

References

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