Sex ratio of birth during wartime and psychological tensions

Dear Sir,

We have reported previously that the sex ratio decreased significantly in Iran during wartime when compared with either pre- or post-war times (Ansari-Lari and Saadat, 2002). Recently, James suggested that one cause of the low sex ratio in Iran during the Iran–Iraq war was low testosterone/gonadotrophin ratios in Iranian men exposed to chemical weapons used by the Iraqi military. He then offers an estimate of the offspring sex ratio of exposed men (James, 2003). However, James failed to mention the study of Pour-Jafari (1994). Jame’s explanation would be called into question by that report. Pour-Jafari reported that the offspring sex ratio in 802 men exposed to chemical weapons increased significantly to 0.572 (total births 1193) (Pour-Jafari, 1994).

Based on data presented in our previous report (Ansari-Lari and Saadat, 2002), the decreased sex ratio during the Iran–Iraq war (1980–1988) resulted in a male birth deficit of ~240 000 (the total number of births in that period was 16 080 000). Even if we accept James’ suggestion and assume that the offspring sex ratio dramatically decreased to 0.45, in order to interpret the male birth deficit, 25% of total births must have occurred in families in which the fathers were exposed to chemical weapons. We think that this is impossible.

During the 1982–1985 Iran–Iraq war, a number of cities repeatedly became the target of bombing raids. Also, at the same time, Iran experienced the extended terrorism activities of Sazeman-e-monapheqin (a terrorism organization). Therefore, we suggest that Iranian families experienced psychological tensions and stress during the war. There is evidence that the sex ratio decreases under psychological stress (James, 2003). Taken together, it might be suggested that acute psychological stress in Iran at that time resulted in alterations of sex hormones and a reduction in the sax sex ratio at birth.

References

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