

EDITORIAL

Making children is good for health and it protects from autoimmune disease

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The recent radical changes in life style have lead to a general trend to delay the first childbirth in all industrialized societies. Until few decades ago parental age was on average before 25 years and now it has crossed the 30 year threshold.

It is indeed a quite recent trend as I consider my own family's history. My great-grandfather Gaspare (born 1856) had his first son, Francesco, when he was 26. I do not know the age of my great-grandmother but I suppose she was younger. Francesco and his wife Ester had their first child, Gaetano, when they were respectively 27 and 20. My father Gaetano and my mother Giuseppa had their first daughter Elvia when they were respectively 27 and 26. Elvia had her only child when she was 26 and as far as I am concerned, I had my first son with a contemporary when I was 27. My two children, Michele and Anna Giulia, aged 40 and 29, have not had any children yet.

The demographic subsequences of this trend are very clear, but what are the subsequences on health?

Not having children or having them too late compares to the biological clock deprives the female body of an extended endocrine exposure which is a factor of immune balance and harmonization. At the same time it deprives the male body of an extended exposure to the hormones of empathy and joy (oxytocin and dopamine), moderation of aggressiveness (increase of prolactin and decrease of testosterone). Obviously pregnancy is especially crucial for the woman: it represents a moment that marks the wonderfully mutable female body with a new physiological allostasis.

During pregnancy all the levels of estrogens, progesterone, cortisol are very high and, at the same time, the level of inflammation is very low. A high level of inflammation would damage the foetus and endanger the continuation of the pregnancy itself.

As we have already observed, not having pregnancy during the biological time increases especially the risk of an immune unbalance. This thesis is confirmed by an extensive Danish study on multiple sclerosis which documents how all pregnancies (even the not

terminated ones) and especially those that are not late, reduce the risk of contracting this nervous central system autoimmune disease which as most of the autoimmune disease tend to affect mainly women¹.

Other factors related to the last century change of the women life style such as stress from work overload (outside and inside the house), the increase of smoke, the widespread exposure to endocrine disrupters contained in cosmetics and esthetic medicine (silicone) can be linked to this data and together they provide a more comprehensive picture than the usual rigmarole on the “inflammatory” role played by the estrogens in order to explain the disproportion on the incidence of autoimmune diseases between women and men.

Such disproportion seems not to be constant along the time, as we should expect if the main cause were genetics or estrogens.

The Danish research has shown the following trend on multiple sclerosis: in 1950 the ratio woman:man was 1,3:1; in 1977 it had increased to 1,5:1 to reach 2,02:1 in 1990. An increasing trend which is confirmed also from data coming from France and Argentina. Having children according to biological time seems to be quite an investment on health.

1) Magyari M (2016) **Gender differences in multiple sclerosis epidemiology and treatment response.** *Dan Med J.* 63(3). pii: B5212