

## THE EFFECT OF EXCEPTIONAL PARENTAL LONGEVITY ON LIFE EXPECTANCY

*To the Editor:* The literature shows that children of centenarians live longer than their age- and sex-matched peers in the general population,<sup>1-8</sup> yet to the knowledge of the authors of the current letter there has been no estimate of the difference in life expectancy between these groups. This is documented here, based on both an analysis of the Health and Retirement Study (HRS) Public Use Dataset<sup>9</sup> and the extant literature.

Life expectancy is a widely used measure of the health of a population or a subset. For example, life expectancy at birth in the United States has increased roughly 50% since 1900, reflecting major advances in medical care and public health.

Survival data on 37,510 persons aged 50 and older in the HRS were analyzed.<sup>9</sup> Of these, 122 had parents who lived to age 100 and older. A Cox proportional hazards regression model was fit on the survival times (computed from the person's initial age until end of follow-up). When only age, race, and sex were controlled for, an annual hazard ratio (relative risk (RR) of mortality) of 0.77 was found for those with centenarian parents compared with those without, indicating 23% lower instantaneous mortality.

The finding held true when current medical conditions were additionally controlled for in narrow age groups considered in isolation and in the subset of 1,603 persons who had no significant medical risk factors. A similar RR (0.75) was also found if exceptional parental longevity was defined more modestly: having a parent who survived to age 95 and older. To put these RRs in perspective, the RR of not smoking compared with smoking is roughly 0.50 at all ages.

These findings are in keeping with those of other researchers. We give two examples:

- 1 The hazard ratio (i.e., RR) was 0.89 for each decade longer that the parents lived. For children of centenarians, the RR compared with those whose parents died in their 70s (the average in the general population) is thus equal to  $0.89^3 = 0.70$ .<sup>5</sup>
- 2 Similarly, men in the longer parental longevity group (father lived to age  $\geq 80$ , mother  $\geq 85$ ), compared with men in the shorter (father  $< 80$ , mother  $< 85$ ), had 83% of the annual mortality risk, or an annual reduction of 17%. That is, these offspring had roughly 83% of the risk compared with the general population.<sup>4</sup>

The effect of exceptional parental longevity on life expectancy of a 70-year-old man will now be illustrated. In the general population, the life expectancy at that age is 13.6 additional years.<sup>10</sup>

Taken as a whole, the literature and the results of the current study suggest that the effect of having a centenarian parent, compared with the general population, is associated with a RR perhaps as low as 0.70. If so, and if this advantage persists for the lifetime, use of standard methods<sup>11</sup> shows that the resulting life expectancy for men aged 70 is 16.1 years. This is 2.5 years more than for the general population.

The female general population life expectancy at age 70 is 15.9 years, or 2.3 years more than for men. The advantage of being a male child of a centenarian is thus similar to that of being female rather than male. It is also similar to the effect of current good general health.<sup>11</sup>

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## PEMPHIGUS IN ELDERLY ADULTS: CLINICAL PRESENTATION, TREATMENT, AND PROGNOSIS

*To the Editor:* Pemphigus vulgaris (PV), pemphigus foliaceus (PF), and pemphigus paraneoplastic (PNP) are rare autoimmune bullous diseases resulting from anti-intercellular substance autoantibodies, especially antidesmoglein 1 and 3. In contrast with bullous pemphigoid, another autoimmune bullous disease that occurs in elderly adults, the mean age of onset of PV is 50.<sup>1-3</sup> Systemic corticosteroids (steroids) are the reference treatment.<sup>4</sup> In situations of dependence or resistance, immunosuppressant agents or rituximab are indicated.<sup>5,6</sup> Overall, 1-year mortality is less