

*Letters to the Editor*

Correspondence re: Schoen *et al.*, Lack of Association between Adipose Tissue Distribution, and Insulin-like Growth Factor-I and Insulin-like Growth Factor Binding Protein-3 in Men and Women. *Cancer Epidemiol. Biomark. Prev.*, 11: 581–586, 2002

*Letter*

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We commend Schoen *et al.* (1) on their well-conducted study, in which the authors conclude there is no association between adiposity and either IGF-I<sup>1</sup> or IGF binding protein-3, although there was a strong correlation between visceral adipose tissue and insulin level. It has been suggested recently that the relationship between adiposity and IGF-I may be an inverted U, *i.e.*, nonlinear (2). Inspection of Table 3 in Schoen *et al.* (1) suggests that visceral adipose tissue and some of the IGF-related measures have an inverted U-shaped relationship. If this were so, it is not surprising that both the correlation coefficients and the trend tests were not statistically significant, because both tests assume a monotonically increasing or decreasing trend. Given the increasing attention to the role of the IGF family in cancer etiology (3), it would be informative to know whether this purported inverted U-shaped relationship exists in the Schoen *et al.* (1) study population. Understanding how adiposity and its characteristics influence the levels of the IGF family members provides much needed insight regarding potentially modifiable cancer risk factors.

**References**

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distribution and IGF-1 and IGFBP-3 in men and women. *Cancer Epidemiol. Biomark. Prev.*, 11: 581–586, 2002.

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*Reply*

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Global tests of general association do not show statistically significant associations between sex-specific VAT quartile and IGF measures, dichotomized as sex-specific median cut-points. Scatter plots do not provide strong evidence for an inverse U-shaped association between IGF-I and VAT, in men (Fig. 1) or women (Fig. 2). The elevated odds of high median IGF-I in women with second quartile VAT relative to women with first quartile VAT probably represents a chance occurrence related to the specific cut-points chosen to convert variables (*e.g.*, IGF-I and VAT) measured on an interval scale into analytic variables measured on an ordinal scale.

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<sup>1</sup> The abbreviations used are: VAT, visceral adipose tissue; IGF, insulin-like growth factor.

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<sup>1</sup> The abbreviations used are: IGF, insulin-like growth factor.

Fig. 1. Association between IGF-I and VAT, in men ( $n = 267$ ), with least square quadratic regression curve (F value = 0.28, 2 degrees of freedom;  $P = 0.76$ ).

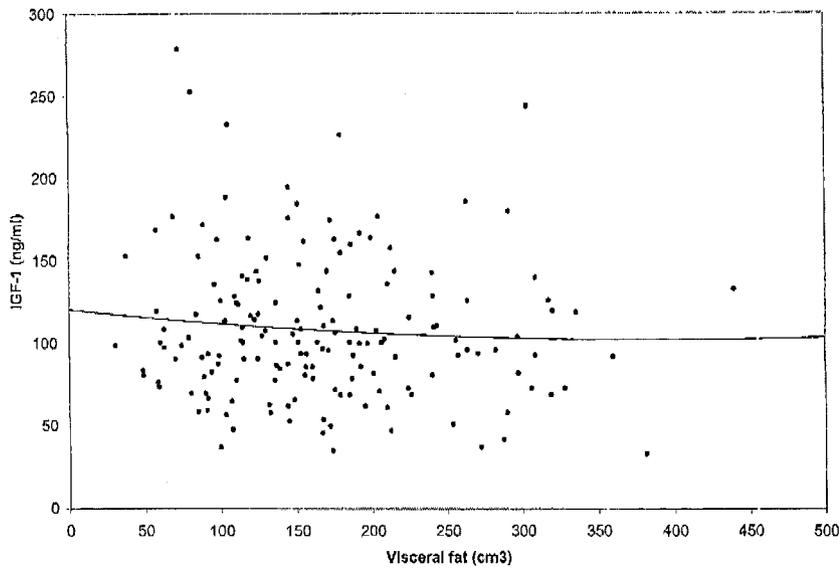
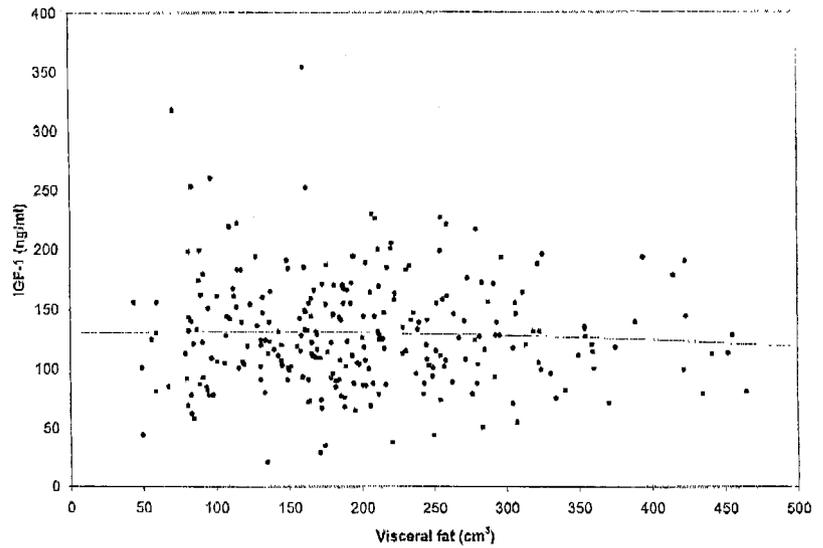


Fig. 2. Association between IGF-I and VAT, in women ( $n = 165$ ), with least square quadratic regression curve (F value = 0.59, 2 degrees of freedom;  $P = 0.56$ ).

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