

LETTER to the EDITOR

Thyroid Autoantibodies and Breast Cancer

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Dear Editor

We read with great interest the recent article by Shi and colleagues (2014) reporting a meta-analysis on the relationship between thyroid hormones, thyroid autoantibodies and breast cancer. In the paper, the authors analyzed eight different cross-sectional studies, which included more than 4000 participants, and concluded that serum levels of free-triiodothyronine, thyroperoxidase and thyroglobulin autoantibodies are higher in patients affected by breast cancer, compared with the control group. These findings are well in agreement with the meta-analysis reported by Hardefeldt and colleagues, showing an increased risk of breast cancer in patients with autoimmune thyroid disease, and with a recent article by our group in which the prevalence of breast cancer in 3921 female patients affected by both benign and malignant thyroid diseases was evaluated (Hardefeldt et al., 2012; Prinzi et al., 2014). In the latter, we showed that the prevalence of breast cancer in patients affected by thyroid disease, as a whole, was significantly higher, compared to the general population (OR 3.3). Moreover, the age-matched analysis showed that the risk of breast cancer was higher in younger patients (0–44 yr, OR 15.2), to decline with the increasing age. In the same study, when patients were dichotomized based on the presence or the absence of thyroglobulin and/or thyroperoxidase autoantibodies, both groups showed a higher risk of breast cancer, compared to the general female population. When the two groups were compared to each other, however, the risk of breast cancer was significantly lower in autoantibody positive patients. Thus, as clearly stated in our article, among patients affected by thyroid diseases, the presence of thyroid autoantibodies may have a protective role against breast cancer (Prinzi et al., 2014). As a consequence, the sentence reported by Shi and colleagues in the Discussion section of their article stating that their findings are in disagreement with our data is not correct and should be, if at all possible, amended.

References

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