

# Unknown Effects of Breast Enhancer Products on Diagnostic Imaging Outcomes

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Dear Editor,

We have noticed that there is a significant offer of products on the web promising a breast enhancing effect.

Besides dietary supplements (1, 2), our attention was caught by some cosmetic products which proposedly act by capturing fat from food sources and store them in the breast (3). A major group of plant based dietary supplements that is on the market includes Pueraria Mirifica as the active ingredient (4, 5), and although there are only a few studies in the literature concerning the estrogenic activity of this plant extract including even an antitumor effect delineated in an in vitro study (6), there is no data concerning the safety and efficacy of this product except one study on the lipid profile and biochemical markers of bone turnover rates in healthy postmenopausal women (7). Moreover, despite the misleading advertisements, the active ingredient has not yet been approved by the FDA, as the lack of evidence is clearly delineated in the FDA report (8, 9).

Indeed, in the literature we have not been able to find any study on its effectiveness as well as the consequent alteration of breast pattern and, more importantly, its impact on the interpretation of diagnostic images. However, we found many comments in some women forum about cosmetic outcomes, mentioning an average one-breast size increase, as well as volume loss after stopping application, with no other appreciable effect (10).

Assuming the real effectiveness of such products, here not questioned, we believe it would be appropriate to initiate some clinical studies to assess how the unnatural accumulation of fat could change the appearance of the breast structure along with its impact on breast imaging in terms of challenges in comparative interpretation with previous studies. Regardless of the results of future studies, it is crucial to annotate the use of these products in women's medical history as well as warn them about their possible side effects.

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