

## The Incidence of Tuberous Breast Deformity in Asymmetric and Symmetric Mammoplasty Patients

Sir:

We read the article by DeLuca-Pytell et al.<sup>1</sup> with great interest. We have dealt with the subject of tuberous breast deformity in depth,<sup>2</sup> and we would like to offer our own experience on the subject.

The tuberous breast deformity first described by Rees and Aston in 1976<sup>3</sup> has been recognized as a rare deformity characterized by deficiency in the vertical and/or horizontal dimensions of the breast due to a constricting fibrous ring at the level of the periphery of the nipple-areola complex.<sup>2,4,5</sup> This constricting ring is usually denser at the lower part of the breast and does not allow the developing breast parenchyma to expand during puberty. In a recent publication, we looked at the cause of tuberous breast deformity and suggested a thickening of the superficial fascia combined with the absence of the superficial layer of this superficial fascia under the nipple-areola complex as the underlying anatomical/histopathological cause for the deformity.<sup>2</sup>

As far as the incidence of the deformity is concerned, in the last 8 years, we have come across 34 cases of true tuberous breast deformity in a pool of approximately 500 patients who presented for breast surgery, although the true incidence of the deformity in the population remains unknown. We were surprised, therefore, to read the article by DeLuca-Pytell et al.,<sup>1</sup> in which it was concluded that tuberous breast deformity is a very common problem, identified in as many as 73 percent of the 375 patients studied. This conclusion did not correspond with our own experience over the years, so we looked at the article with a more critical eye. We believe that the authors, although driven by a genuine scientific curiosity, committed a grave error in the design of their study. They used the criteria of tuberous breast deformity too liberally, and therefore included virtually every single breast deformity they came across, as depicted in Figure 3 of their article. We, too, believe that tuberous breast deformity is a deformity that often goes unrecognized by the untrained eye, but on the other hand, the untrained eye can easily classify all deformities as tuberous breasts.

We would like to commend the authors for their effort, but we would also like to draw their attention to our theory on the cause of the deformity,<sup>2</sup> which could offer some assistance in understanding its nature.

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## Maternal Cigarette Smoking during Pregnancy and Congenital Digital Anomalies

Sir:

Recently, Man and Chang (*Plast. Reconstr. Surg.* 117: 301, 2006) utilized National Center for Health Statistics birth certificate data to examine the association between maternal cigarette smoking and “congenital digital anomaly.” While the freely available public use datasets of the National Center for Health Statistics have greatly increased researcher access for analytical purposes, this analysis is an example of the unintended consequences of the widespread availability of these data. Man and Chang devised a case-control study design using a cross-sectional dataset (1999 to 2001), identifying cases as any live birth whose birth certificate checkbox for “polydactyly, syndactyly, adactyly” was marked. Two controls for each case were selected from among those births without any congenital anomalies, matching for maternal and paternal race, sex, county of birth, and month of birth. This study design may appear reasonable on the surface, but when one looks deeper, serious flaws emerge. Congenital disabilities epidemiologists strive to minimize the potential for etiological heterogeneity by avoiding grouping diverse conditions into a single category. While all three conditions, polydactyly, syndactyly, and adactyly, relate to congenital abnormalities of the digits of the hand or foot, these conditions are very different and should not be analyzed as a single group of anomalies. Polydactyly can result from single gene disorders and frequently occurs in isolation from other congenital disabilities. Syndactyly and adactyly frequently occur in conjunction with multiple defects in other organ/body systems. While Man and Chang limited their analysis to those cases with no other congenital disabilities reported, numerous studies have demonstrated the extremely poor sensitivity and positive predictive value of U.S. birth certificate reporting of congenital anomalies.<sup>1,2</sup> In addition, limb reduction defects, a broad grouping of congenital abnormalities that includes the conditions referred to by Man and Chang as “congenital digit anomalies,” can involve a single limb, which might be an upper or a lower limb, and can involve laterality as well. No data on these issues are available from the birth certificate records.