

Natural History of Premature Thelarche in Olmsted County, Minnesota, 1940 to 1984

Van Winter et al report a population-based study of the incidence of premature breast development in girls between the ages of 6 months and 6 years in Olmsted County, Minnesota, for 1940 to 1984. Because of the dossier-type recording by the Mayo Clinic and other health providers in this community, diagnoses are indexed so that the details of medical care for the entire community are available for review. The authors identify cases of unilateral or bilateral benign breast development occurring between the ages of 6 months and 8 years if other signs of sexual maturity had not developed by 8 years of age. A total of 66 girls were identified, for an incidence rate of 21.2 per 10⁵ patient-years; 48 of these had early breast development as an isolated finding and 43 of the 48 could be followed through age 8. Of the 48 girls, 23 had bilateral breast development ranging from 1 to 6.5 cm in diameter. Of the 48, 43 were located and 39 responded to a survey concerning the development of early puberty, breast cancer,

gynecologic malignancy, or autoimmune disease. Of 25 respondents between the ages of 16 and 42 years, all had attained an adult height between 155 and 173 cm, their mean age of menarche was 12.6 years, and 10 women had attempted pregnancy and conceived.

The authors point out that this is the first population-based study to show that premature thelarche is self-limiting and has a low incidence. In most of the patients, the premature thelarche disappeared before the onset of puberty and was followed by normal puberty, including menarche and normal reproduction.

Van Winter JT, Noller KL, Zimmerman D, et al. *J Pediatrics* 1990; 116:278–280.

Editor's Comment—Although there have been reports of the prevalence of premature thelarche, there have been no studies that sys-

tematically followed these girls through puberty, young adulthood, and the reproductive years. There have been various reports in the literature of clusters of cases of premature thelarche, but as the authors point out, their significance is unclear because it is unknown whether the observed cases were more numerous than might have been expected by chance alone. The Olmsted County, Minnesota, and Mayo Clinic data provide a unique opportunity to perform such a population-based study. However, the causes of thelarche may be multiple. In addition, epidemics do occur, as for example those reported in Puerto Rico. Therefore, the incidence of thelarche will vary from geographic site to geographic site, and possibly from year to year. For example, between 1940 and 1960, estrogens were frequently found in vitamins, meats, and other ingestible products, but no ingestion of contaminating estrogens has been found in the patients in Puerto Rico (J Pediatr 1985;107:393–396). While

this short paper is an important addition to our understanding of the benign course of this disease, the statistics regarding incidence must be regarded as applying only to Olmsted County, Minnesota.

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