

Bilateral Gynecomastia Associated with Accessory Mammary Gland: Sporadic Clinical Finding in a Patient with Acne Vulgaris

Tchernev G^{1*}, James W. Patterson², Chokoeva AA³, Wollina U⁴

¹Policlinic for Dermatology and Venereology, University Hospital Lozenetz, Sofia, Bulgaria

²Department of Pathology, University of Virginia Health System, Charlottesville.

³Onkoderma-Policlinic for Dermatology and Dermatologic Surgery, General Skobelev, Sofia, Bulgaria

⁴Department of Dermatology and Allergology, Academic Teaching Hospital Dresden-Friedrichstadt, Dresden, Germany

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***Corresponding author:** Assoc. Prof. Georgi Tchernev, Policlinic for Dermatology and Venereology, University Hospital Lozenetz, Koziak street 1, 1407 Sofia, Bulgaria, Tel: +359 885 588 424; E-mail: georgi_tchernev@yahoo.de

Dear editor,

A 18 year-old white male patient presented to our clinic with complains of mixture of noninflammatory comedones with inflammatory papules, without pustules and nodules, affecting the face, lesser extent the back, but not the chest. The diagnosis acne vulgaris mild form was established. Whole body dermatological examination disclosed bilateral gynecomastia (Figure 1a), associated with accessory mammary gland to the right side (Figure 1a, b, c, d). The gynecomastia represented a bilateral persistent benign enlargement of breast mammary glandular tissue (Figure 1a), resulting from a proliferation of the glandular component of the breast, caused most likely by an imbalance of the hormones estrogen and testosterone with increase in the ratio of estrogen to androgen activity, defined clinically by the presence of a rubbery or firm mass extending concentrically from the nipple.

The accessory mammary gland was successfully surgically resected with elliptic excision of the tissue lesion.

The histopathological evaluation (Figure 2) of the biopsy from the accessory mammary gland showed hyperkeratosis, acanthosis, epidermal inclusion cysts and zonal epidermal reparative hyperplasia of the epidermis. In the reticular derma we found: uniform rounded and spindly cells, distinguished by different wide stripes of hyalinized collagen (Figure 2b), located in different directions in poorly organized bundles (Figure 2a); restricted areas containing smooth muscle and myofibroblast-like cells (Figure 2c); annular and intralobular stroma's collagenisation with stromal fibrosis (Figure 2d); desmin and caldesmon expression; hormonal receptors expression. The morphological findings were inherent to the criteria of the histopathological profile of accessory mamilla. The state is evaluated with benign course without biological proliferative progression.

Neurological examination as well mental health assessment

did not show any abnormalities. Psychological evaluation revealed mild emotional lability with susceptibility to external influence and manipulation. Cardiovascular, lung and abdominal examinations were normal. Ultrasonography and mammography of the male breasts showed bilateral diffuse gynecomasty with enlargement of the breast with diffuse density, but absence of well-defined identifiable mass and secondary signs for malignancy. The patient denied brain MRI to exclude pituitary tumors. Complete blood count and liver function tests were within the normal range. The hormonal blood tests showed high levels of Prolactin – 466.60 mIU/l (referent values: 8 – 324 mIU/l), Progesterone – 4.98 nmol/l (referent values: 0.7 – 4.3 nmol/l) and DHEA-S – 19.480 µmol/l (referent values: < 12.65 µmol/l) with normal levels for LH – 3.32 IU/l (1.7 – 8.6 IU/l), FSH – 2.70 IU/l (1.5 – 12.4 IU/l), Estradiol – 80.76 pmol/l (28 – 156 pmol/l), Testosterone – 14.83 nmol/l (9.9 – 27.8 nmol/l), TSH – 3.99 µIU/ml and total hCG – < 0.100 mIU/ml (<2).

The causes of gynecomastia could be idiopathic, physiological (neonatal, pubertal, ageing), pathological (congenital/genetical disorders, endocrine causes, tumors, drugs, metabolic, miscellaneous) [1,2]. Different classifications for gynecomastia are described in the literature [3,4].

The whole nude body dermatological examination every time is of important value, because the physician could find untypical, associated or concomitant diseases with different skin expression. It could be important for the early detection of malignant diseases or disease with slow progression but with fatal outcome in different aspects if not diagnosed at time. The most practical one is proposed by Simon (Figure 3) [3]. We determine the patient's gynecomastia with marked breast enlargement and marked skin redundancy. Differential diagnosis was done with pituitary tumors, adrenal gland tumors, breast cancer, dermoid cyst, hypogonadism, lymphangioma, drug intake. The treatment could be medicinal or surgical with different surgical techniques [5]. Total surgical resection of the accessory mammary gland was

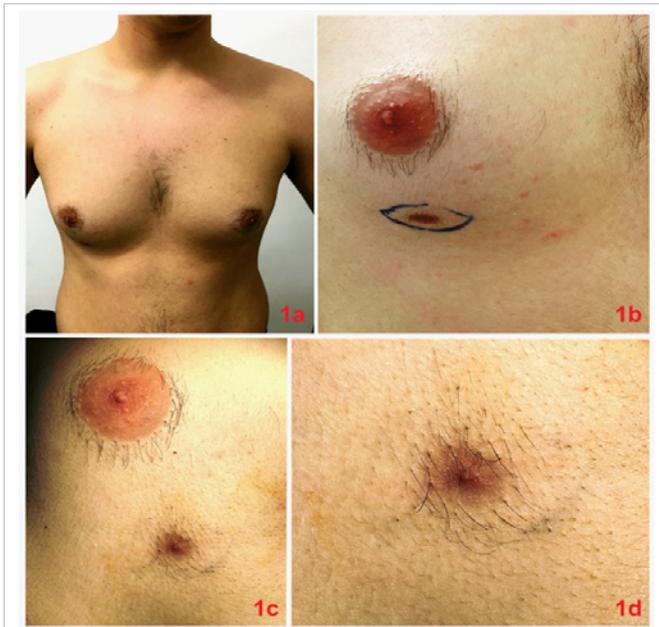


Figure 1: a - Clinical manifestation of a bilateral gynecomastia, associated with a pigmented nodular lesion, resembling accessory mammary gland in a 18-year-old male patient.
b, c, d - Closer view of the clinical manifestation of an accessory mammary gland, located 2 cm below the right glandula mammae in the same patient.

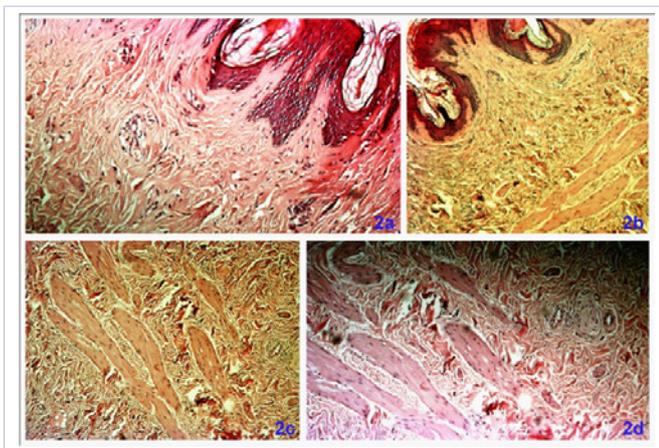


Figure 2: a, b - Histological findings (H-E staining), resembling the normal nipple and areolar tissue components. Mild epidermal acanthosis and basilar hypermelanosis.
c, d - Higher power view, showing the smooth muscle bundles in the dermis, oriented in varying configurations. Glandular tissue elements were not identified.

performed, with subsequent histopathological examination.

Sporadically it is possible to be found bilateral gynecomastia, rarely associated with accessory mammary gland, which can be based on micro or macro prolactinoma or MRI or CT scan should be performed to determine the cause. MRI is the method of choice due to its higher resolution and image precision.

Further studies with psychological evaluation about the correlation between acne vulgaris, bilateral or unilateral gynecomastia with sensitive emotional behavior and the degree of emotional lability with susceptibility to external influence and manipulation should be performed future studies.

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