

Fibrocystic breast disease: pathophysiology, pathomorphology, clinical picture, and management.

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Abstract

The pathophysiology of fibrocystic breast disease is determined by **estrogen predominance and progesterone deficiency** that result in hyperproliferation of connective tissue (fibrosis), which is followed by facultative epithelial proliferation; **the risk of breast cancer is increased twofold to fourfold in these patients**. The clinical correlate of fibrocystic disease is reflected by breast and axillary pain or tenderness in response to development of fibrocystic plaques, nodularity, macrocysts, and fibrocystic lumps. The disease progresses with advancing premenopausal age and is most pronounced in women during their 40s. Fibrocystic changes regress during the postmenopausal period. Medical treatment of fibrocystic disease is accomplished: by **suppression of ovarian estrogen** secretion with a low-estrogen oral contraceptive, **whereby the action of estrogen on breast tissues is opposed by the oral contraceptive's progestin component** (19-nortestosterone derivatives), or by cyclic administration of a progestogen (progesterone) that **modulates the mammary effects of estrogen**. These treatment modalities are equally as effective as or superior to danazol therapy, which entails side effects in the majority of patients. Adjuvant therapy of fibrocystic breast disease with vitamin E is of value in patients with borderline or abnormal lipid profiles (low plasma levels of high-density lipoprotein and high plasma levels of low-density lipoprotein). With thorough diagnostic evaluation, appropriate medication, and close follow-up, **treatment success can be achieved in almost every patient**. Needle aspiration biopsy should be performed in patients with macrocysts and whenever clinical, ultrasonic, and/or mammographic examinations are suspicious for carcinoma. Patients at high risk of breast cancer (breast cancer in mother and/or sister) should have clinical examinations at 4- to 6-month intervals and mammography every 1 to 2 years; needle aspiration should be performed when the slightest suspicion arises. Fibrocystic breast disease is not a "harmless nondisease" but a distinct clinical entity that requires treatment to bring about relief to the patient, to reduce the incidence of breast surgical procedures, and to **diminish the risk of breast cancer**.

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