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Research Article

PATHO-PHYSIOLOGY OF BENIGN BREAST DISEASE

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A R T I C L E I N F O

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A B S T R A C T

Benign breast disease is a common problem in day to day life of women of various age groups. The fear psychosis of having cancer in relation to any breast problem forces a lady to consult a doctor and get further investigated. Majority of breast symptoms are because of benign breast diseases with subsequent patho-physiological changes in the breast. The aberrations in normal development and involution (ANDI) leads to the structural, physiological and pathological changes in the breast. A careful history, symptoms signs and investigations done has been noted in the cases with special reference to patho-physiological changes in different cases.

INTRODUCTION

Breast feeding is the characteristic feature of all the mammals including human beings and is the best method of nourishing the new born. The breast is a subcutaneous structure consisting of mammary glands in the form of lobes, lobules and ducts surrounded by fat and fibrous issue. Breast which is a dynamic structure keeps changing its form and function with the age and need of the body. This can be named as benign breast changes or benign breast diseases. The Cancer phobia in a lady having a breast problem has compounded this problem to a great extent. The patho-physiological changes with age, puberty, sexual behavior, childbirth and advancing age have been studied with the help of possible investigations.

MATERIAL AND METHOD

In the present study, which was a retrospective observational study, patho-physiological changes in the breast in various age group and having various symptoms were studied with respect to the history, clinical examination and available investigation in 50 girls/ladies over a period of eighteen months.

The commonest presentations were

1. Lump breast
2. Pain in one or both breast (Mastalgia)
3. Discharge from Nipple and
4. Fibrocystic changes
5. Acute/Chronic inflammatory lesions

The Aim of Study was to notice patho-physiological changes associated with the above symptoms in different patients

Lump breast

Fibroadneoma was found to be the commonest breast lump in early reproductive age group. They are hyper plastic, benign fibroepithelial lesions of the breast composed of both stromal and epithelial components. They arise from the terminal ductal and lobular units. Since they originate from the terminal ductal and lobular units with the surrounding stroma, they can have the entire spectrum of benign proliferative changes. They can be single or multiple in one or both breast.

Clinically they were firm, freely mobile, non tender breast mass. Diagnosis was confirmed by ultrasound, mammogram, FNAC, core cut biopsy. Reassurance or excision was done in symptomatic patients and on patients demand.

Mastalgia/Pain in one or both breast

Mastalgia was either cyclical or noncyclical. Cyclical mastalgia commonly found in young women was associated with menstrual period and reassurance with analgesics were enough for them.

Noncyclical mastaligia found more in Premenapausal & Perimenapausal women was better investigated to rule out any hidden pathology, like malignancy.

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The common patho-physiological changes found in relation to mastalgia was lumpiness, granularity of various size, and cyst formation. These cysts on getting inflamed give rise to pain.

Discharge from Nipple

Discharge from nipple was found in approximately 5% of patients presenting with breast related compliant. Off course in few cases nipple discharge may be the earliest sign of breast cancer. Keeping this in mind all cases of nipple discharge must be regularly followed and properly investigated.

Physiological Secretions vs. Nipple Discharge

It is important to differentiate physiological secretions from pathological nipple discharge. There are normal secretions within the breast ducts consisting of epithelial cells which are shed off from the normal ductal epithelium and their by-products. These secretions are usually reabsorbed and prevented from discharging on the nipple by keratin plugs which block the orifices. When these secretions become copious and persistent and start coming out through the nipple it is known as nipple discharge.

Nipple discharge can be physiological or pathological. Physiological discharge may be due to hormones, drugs, stress or endocrine abnormalities. It is usually bilateral and affects many ducts with different colours. Pathological nipple discharge is due to an abnormality of duct epithelium and is usually unilateral and from a single duct opening. The discharge is spontaneous, copious and bloody, watery or serous in character.

The cases with nipple discharge were investigated. Good clinical examination with routine investigations including ultrasonography and mammography was done. Ductoscopy was done as and when needed. The discharge was also sent for cell cytology for early diagnosis of malignancy and especially when it was blood stained. The cases were treated by reassurance, medical management and duct excision if needed depending on supporting investigations.

Fibrocystic changes

Fibrocystic changes in the breast were seen predominantly in the perimenopausal age group. It was found to be a normal patho-physiological change in the breast subsequent to its involution due to advancing age. The ductules either involute or get compressed, while the acinar cells continue to produce fluid. This fluid accumulates resulting in micro and macro cysts. The vast majority of cases were asymptomatic. They are incidentally seen on routine mammographic screening. Cysts are seen frequently in the 40s and early 50's. i.e., in the perimenopausal age group. They represent the involutionary phase of breast physiological change. Symptomatic cyst presented with palpable breast mass and was associated with pain and tenderness.

Ultrasound and Mammography and occasionally MRI was confirmatory for the cyst while its aspiration and histopathology were done to rule out malignancy.

Acute/Chronic inflammatory lesions

Acute/Chronic inflammatory lesions were also found in some cases which were pathological and not physiological. Acute Mastitis was found to be more common in lactating while Tuberculosis was commonest grannulomatous breast lesion found.

RESULTS AND CONCLUSION

Benign breast disease is a common problem associated with aberrations in normal development and involution of breast (ANDI) in various age groups. The patho-physiological changes commonly lead to cyst formation, occasional lumps, nipple discharge and mastalgia. The apprehension of carcinoma breast in a lady with the above symptoms and patho-physiological changes, even when most of these diseases were benign breast disease should lead to medical consultation and proper investigations. Breast screening programme in Western world is worth appreciable. A careful history, proper counseling, justified investigations and essential treatment is all that is needed in a case of benign breast disease. Normal physiological changes in breast in relation to age and the aberrations of normal development and involution (ANDI) must be kept in our mind while dealing with a lady with breast diseases.

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