

ORIGINAL ARTICLE

Role of Sonomammography as First Radiological Diagnostic Modality in Patients with Complain of Mastalgia

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ABSTRACT

Aim: To evaluate sonomammography as the first radiological diagnostic modality in patients with mastalgia.**Study design:** Observational cross-sectional study**Place and duration of study:** Department of Radiology, Sandeman Provincial Hospital Quetta and Akram Hospital Quetta from 1st February 2019 to 31st July 2019.**Methodology:** Ultrasounds of 60 patients were performed who presented with complain of mastalgia. Patients with history of lump, nipple discharge, carcinoma breast, implant and HRT were excluded.**Result:** The aged from 16 to 47 of the patients. Forty eight patients had normal/negative sonomammography. Twelve patients had positive report where lesion were, benign 9, intermediate 1 and malignant 2. There were 45 patients were married and 15 patients were unmarried. Patients with unilateral breast pain complain were 28 while bilateral were 32. Patients with cyclical breast pain were 7.**Conclusion:** The sonomammography is a valuable diagnostic tool in patients with breast pain to reassure and satisfy the patient. Normal ultrasound breast with proper reassurance and counseling, appropriate self examination technique can lead the way. Sonomammography is easily available at outdoor patient department. It is noninvasive and radiation free technique which is comfortably acceptable by the patient and satisfy their attendants.**Keywords:** Sonomammography, Benign, Malignant, Mastalgia

INTRODUCTION

Mastalgia is the most common breast symptom for breast clinic consultation. Approximately 60 to 70% women experience some degree of breast pain in their life. It is more severe in 10-20% of cases. Breast pain is cyclical or noncyclical, focal or diffuse. Cyclical pain is related to hormonal change usually bilateral and more in upper outer quadrants. Noncyclical focal pain is due to breast disease, mostly benign. When mastalgia is severe it effects different daily routine of life and needs attention¹.

There is more awareness among the general population about the breast cancer so they worry about it and try to find an easy and quick way for solution of problem. Other reason is severe pain is affecting the quality of life. Self referral for ultrasound breast among women with mastalgia is observed².

Breast screening procedures includes mammography, sonomammography and FNAC. Ultrasound of breast helps to rule out any pathology and to reassure the patient. It is real time with face to face conversation with patient and direct observations of the involved area with ultrasound reassures and satisfies the patients. It is advised for any age while mammography is less useful in women who are less than 35 years due to dense breast tissue on the other hand FNAC is invasive method.³

Most patients are referred to radiology department for ultrasound and referral slips also mentioned that FNAC is also advised at the same time which is invasive and painful procedure. So if sonomammography is normal than there is no need for invasive procedure⁴.

The objective of the study was to evaluate sonomammography as the first radiological diagnostic modality in patients with mastalgia.

MATERIALS AND METHODS

This cross sectional observational study was conducted at Diagnostic Radiology Department of Sandman Provincial Hospital Quetta and Akram Hospital Quetta from 1st February 2019 to 31st July 2019. Sixty patient were included in the study who were

referred to radiology department with complain of breast pain for ultrasound breast. The history of lump, nipple discharge, carcinoma breast, implant and HRT were excluded. Ultrasound breast was performed by senior radiologist of 7 years experience and findings of ultrasound breast were interpreted. Ultrasound was performed on ultrasound machine with linear probe of high frequency (12-18) Mhz. Data was collected and analyzed by SPSS-20. Before starting this research, approval was granted by the Institutional Ethical Committee.

RESULTS

There were total of 60 patients with age range of 16-47 and mean age was 31.5. Married patients were 45 while unmarried were 15. All patients presented with breast pain referred by physician, surgeons and gynecologists. It was unilateral or bilateral. Patients with unilateral breast pain were 28(46.6%) and bilateral were 32(53.3%). Patients who were with history of cyclical mastalgia were 7(11.6%) while other were 53(88.33%). Patients with normal/negative imaging findings, were 48(80%) and abnormal/ positive findings were in 12(20%). Patients with positive findings show benign were 9, probably benign was 1 and malignant was 2 (Tables 1-3).

Table 1: Demographic information of the patients (n=60)

Variable	No.	%
Age (16-47 years)	31.5±4.8	
Marital status		
Married	45	75.0
Unmarried	15	25.0
Type of mastalgia		
Cyclical	7	11.7
Monocyclical	53	88.3
Breast involvement		
Unilateral	28	46.7
Bilateral	32	53.3

Table 2: Ultrasound findings of the breast

Variable	No.	%
Normal/negative	48	80.0
Abnormal/positive	12	20.0

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Table 3: Frequency of positive findings (n=12)

Finding	No.	%
Benign	9	75.0
Probably benign	1	8.3
Malignant	2	16.7

DISCUSSION

It is observed in ultrasound department that patients referred for ultrasound breast are mostly complaining about mastalgia. Their referral slips also show that at the same time they are advised FNAC as well. As there is increase awareness among the general population about breast cancer. Ultrasound breast is considered as easy approach by the patients and physicians. Fear of cancer lead to anxiety and depression and whole family get panic attack. Though a thorough examination and good history would point to benign cause or no pathology but most of patients and their family members choose and demand for breast imaging and especially ultrasound breast. Female patients mostly consult gynecologist and female doctors but there are quiet of them who consult male doctors especially surgeons who are best in their field. Keeping the social environment of Baluchistan where examinations of female patient by male doctors are generally not performed so they advise ultrasound breast to patients which is cheap and easily available⁵⁻⁶.

Breast screening includes mammography, sonomammography and FNAC/biopsy. Mammography is considered after age of 35 and it is not helpful in dense breast where ultrasound is a savior. On the other hand ultrasound is freely used for all patients with different breast density and age. Advantage of ultrasound is cost effectiveness, real time imaging and face to face conversation with patient. Patients give the history and pin point the area of pain, so with bit modulation in technique of examination patient feel assured and satisfied⁷⁻⁸.

Our study showed that 80% patients had normal/ negative report, so the second investigation advised by the physician appears unnecessary which is invasive and bit uncomfortable techniques. After the normal /negative report proper counseling and appropriate self breast examination technique with suggestion of follow help the patient and alleviate anxiety and FNAC can be avoided. 20% patients had abnormal or positive report.⁹ patients were with benign diseases which include fibroadenoma 4, abscess 2, mastitis 2, duct ectasia with periductal mastitis 2). They were sent back to the referring physician. Probably benign 1 and malignant lesions were 2 they were further send for FNAC/biopsy.

Some time patient is so anxious that they just decide for FNAC which is usually performed blind and can give negative report, if pathologist just team up with radiologist and perform it under ultrasound guidance its accuracy and positive value will increase⁸.

New advances and equipments of ultrasound with more experienced radiologist, ultrasound breast is becoming important and in demand. There are self referral as patient is more aware

and self conscious. Young patients are also quite concerned and ask about ultrasound examination which helps them to get their confidence.

It is also observed that pain can be of muscular origin and referred pain due to bone/joint pathology which is ignored by the patient and physician. As carcinoma of breast is the main worry and patients are more concerned about it but when ultrasound examination shows normal/negative report than patient can move on and physician will think about further possibilities and try to alleviate patient misery⁹.

CONCLUSION

Breast cancer is deadly disease and increasing in female population. Mastalgia is common symptom among female. Early consultation is sought for fear of breast cancer. Ultrasound plays a crucial role in determination of exact cause and etiology of mastalgia as many patients has normal/ negative report. So they can proceed further to look for any other etiology like referred pain from cervical spondylosis or muscular lesion and specific treatment will be advised.

Conflict of interest: Nil

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