

Ultrasound as a Method for the Early Diagnosis of Breast Pathology

Ana Raquel Ribeiro, Daniela Marques, Rute Santos

Medical Imaging and Radiotherapy Department,
Coimbra Health School, Institute Polytechnic of Coimbra
rutemartinsantos@gmail.com

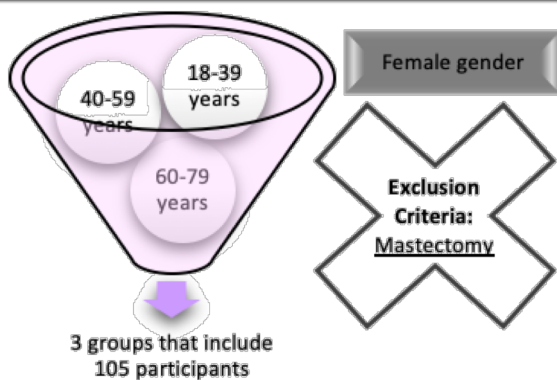


Introduction

❖ Since ultrasound is a technique of noninvasive imaging, it can be repeated as often as necessary, since there is no exposure to radiation, painless and inexpensive. It becomes an ideal method for an early and early evaluation of the breast (1).

❖ The aims of this study are to evaluate mammary features along the age and to get a early assessment of breast disease.

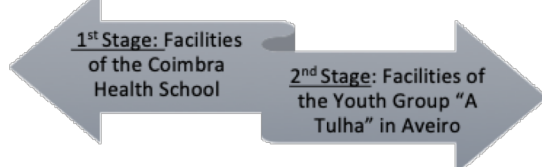
Material and Methods



❖ After completing the informed consent, all participants answered personal and sociodemographic questions, such as personal and family history, menstrual cycle, pregnancy, ultrasound and mammography, among others.

❖ They were then submitted to bilateral mammary ultrasound examination.

❖ Subsequently all the images and their data were analysed and a technical report of the examination was given to all the participants.



Results

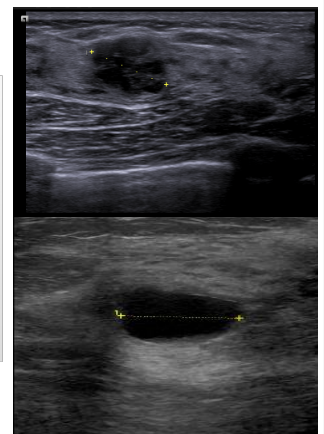
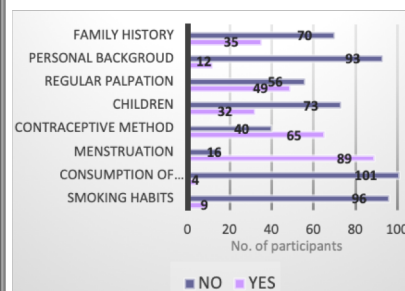
❖ Age groups: 13% to 60-79 years, 15% to 40-59 years and 72% to 18-39 years.

❖ The positive correlation between the presence/not not of breast changes and the personal antecedents ($p < 0.05$).

❖ It was confirmed that with increasing age of the participants, the stromal density decreases.

❖ After 3 months (2nd evaluation), 18 participants with changes, 3 false positives, 9 maintained the changes, 6 did not repeat.

| | | Groups | | |
|---------|-----|------------|------------|------------|
| | | 1 (18-39) | 2 (40-59) | 3 (60-79) |
| Changes | Yes | 22 – 28.9% | 6 – 37.5% | 3 – 23.1% |
| | No | 54 – 7.1% | 10 – 62.5% | 10 – 76.9% |
| Total | | 76 – 100% | 16 – 100% | 13 – 100% |



Discussion/Conclusion

❖ With the study by Kaplan in 2001, it was possible to prove that the breast ultrasound was essential to detect small lesions, about 9 mm, that were not visible in mammography (2).

❖ Breast ultrasound evaluation should be easy to access, because it is a technique more easily accepted due to it is painless. It should be introduced as a screening for pathology breast for an early diagnosis of malignant breast cancer disease and consequently decrease the mortality rate for breast cancer (3).

❖ Derived from the all the advantages that the breast ultrasound can bring, this technique is a good complement to the mammogram.

References

1. Mama. Sociedade Americana do cancro. 2007.
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3. Malemo K, et al. Validation of supra-pubic ultrasonography for preoperative prostate volume measurement in sub-Saharan Africa. Int Urol Nephrol. 2011;43(2):283–8.