

AMULET USER'S VOICE

07



Women's Health



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Mammography is still the gold standard in the early diagnosis of breast cancer and the relevant test for breast screening programs. The accuracy and sensitivity of the test is completely dependent on the quality of the image, which, in turn, is influenced by the way it is performed.

Apart from contributing to the expected efficacy of the screening program and reducing technical recalls, in many cases (particularly in screening), the correct technique in performing a mammography allows diagnostic doubt to be avoided (or at least limited) when this is affected by the poor quality of the mammograms. In fact, although digital technology facilitates the quality from a radiographic point of view, positioning technique and effective compression remains crucial factors.

As pressure is the result of force-to-surface ratio, at the same compression force women with smaller or firmer breasts will feel more pain due to the reduced contact surface. As a result (within certain limits conditioned by the characteristics of the breast and the correctness of positioning), the compression manoeuvre has a heavy influence on both image quality and patient's experience. In fact, according to literature regarding this topic, approximately 75% of women consider mammography to be a painful experience, in 12% of cases affecting adherence to the screening program, early recalls or follow-up checks.

However, the pain does not only depend on the compression of the breast. The same literature reveals the existence of various factors of 'risk of pain', partly subjective – such as the expectation or memory of pain,

breast sensitivity and the psycho-emotional state – or related to the attitude and inter-personal skills of the practitioner, which, if inadequate, can increase the risk of pain by up to 260%, influencing in turn the expectation/memory of pain and the psycho-emotional state of the woman.

On the otherhand, giving the woman the possibility of actively participating in carrying out the manoeuvre of compression would appear to reduce the risk of pain by 65%.

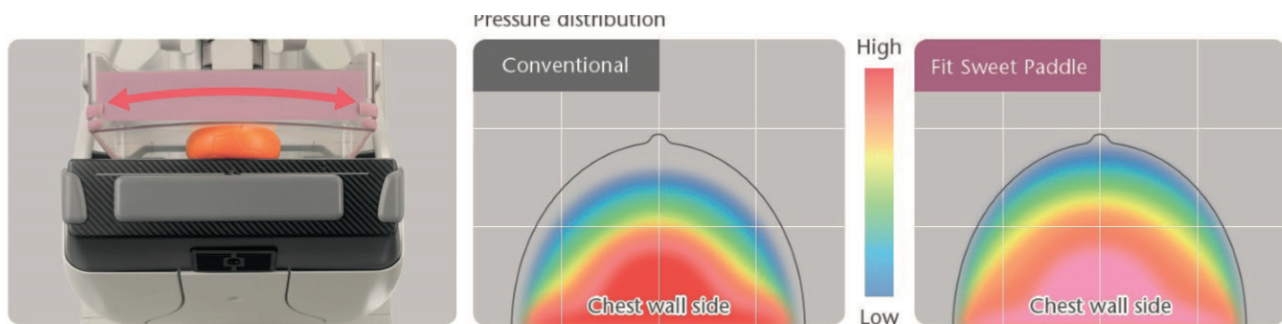
According to a recent study published on the European Journal of Cancer, full and independent compression control by the patient using a patient-assisted device would improve workflow, adherence and compliance, without compromising image quality or increasing glandular dose.

I have personally contributed several studies to this field of research and I fully agree with the opinion that giving women a certain measure of control over compression is an effective solution. On the other hand, it is obvious that a patient-assisted compression device can improve workflow and patient experience only in cases when the mammogram is performed by non-dedicated or inexperienced practitioners. In fact, neglecting the time taken to explain to the woman the procedure, the reasons and the importance of breast compression, further time taken to instruct how to use the device, to monitor and encourage the compression for it to be truly effective, is not at all less than how needed to a dedicated and expert practitioner to inform about the option of interrupting the manoeuvre before it becomes painful.

Results of a study presented at ECR 2017 which assessed the influence of relational skills on the risk of pain by interviews released by 300 women before and after undergoing mammography, reported that after adequate counseling and active participation during compression, out of 231 and 270 women who expected, respectively, a painful or unpleasant experience, only 33 and 12, respectively, retained their opinion; the approval of the optional active participation, the preliminary informations and the room setting was, respectively, 96.8%, 77%, 94.3%, and the positive evaluation about the influence of the practitioner's attitude 99%. Moreover, linear regression analysis has shown that the expectation of pain and discomfort are the most common risk factors among women who have already undergone mammography in the past, in contrast to women at their first mammogram, for which it is crucial the attitude of the staff, as well as for women at follow-up in addition to "scanxiety" effect. Since a couple of years, in my daily practice mammograms are performed with an amulet innovality in

a carefully designed setting with relaxing lighting, music and essences diffusion, according to chrome- music- and aromatherapy principles. Thanks to the implementation of these elements and the adaptive compression system, which ensures a more even distribution of compression, I've achieved a significant improvement in image quality and patient experience. Furthermore, thanks to the intelligent AEC that allows the automatic exposure of the implanted breasts, as well to a new iterative reconstruction algorithm improving image optimization with a lower dose, even the experience of women with breast implants is now improved.

Obviously, just technology and appropriate room setting are worth nothing if the technical, relational and communicative skills are lacking. Mammography should be always performed by suitably trained and qualified breast radiographers whose formative training in Italy has been recently defined by Senonetwork TSRM Working Group, in accordance with European guidelines and EUSOMA recommendations.



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