**La tomosynthèse mammaire**

**Digital Breast Tomosynthesis**

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**Introduction :** Transition from 2D digital mammography to digital breast tomosynthsis (DBT) represents an important technological leap which requires to be perfectly controlled for an efficient adoption of this technique in clinical use.

**Methods :** First, we will clarify the essential points concerning the reconstruction algorithms and the necessary compromises which must be made. Second, we will see that the determination of image quality and the evaluation of radiation dose are essential steps and that they require the set-up of a quality control program.

**Results :** The angular range, the acquisition time and the number of projections acquired, either continuous or by “step and shoot”, are essential technical parameters to be considered. The algorithm influences the speed of the reconstruction and the image quality because of the truncation of acquired projections related to the limited acquisition angle.

The manufacturers having made very different technical choices, it is necessary to make sure of the global quality of the image obtained while controlling the radiation dose delivered to the glandular tissue. In France today, digital breast tomosynthesis is used in clinical daily practice without specific quality control program. This later could be based on the protocol developed by EUREF whose final version was published in March 2015

**Conclusions :** Digital Breast Tomosynthesis is not a simple evolution of digital mammography but represents an important technological innovation where the reconstruction algorithms plays a major central role and requires to set up a quality control protocol without delay.

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