Scientific Sessions

B-1710 14:16
The use of different angulation in mediolateral oblique view based on patient anatomy in mammography
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Purpose: The purpose of this research was to investigate if the quality of imaging in mammography can be maximized for patients with specific anatomy with the use of alternative (35° or 55°) angulation in mediolateral oblique (MLO) projection instead of standard projection with 45° angle.
Methods and Materials: 491 women were included in the study of different constitutional type, who undergone screening mammography at angle of 55° and 35°, and additional imaging (tomography) at an angle of 45°. Slovenian criterion (classification) were used to assess the quality of mammographic images. Three measurements were performed on the mammograms: the width of the pectoral muscle, the retromammary space (fatty tissue) and inframammary part of the breast.
Results: When comparing 45° and 55° angle all three measurements (the width of the pectoral muscle, the retromammary space and inframammary part of the breast) were statistically significant in favour of 55° angulation. 35° angle showed more retromammary and inframammary part of breast compared to the standard angle of 45°, both results were statistically significant. There was no statistically significant difference regarding the display of pectoral muscle between mentioned angulations.
Conclusion: The results showed that the use different angulation in MLO projection showed more diagnostically important breast tissue. We recommend the use of a 35°angle as more appropriate for patients with longer chest and small breasts and the use of a 55°inclination in short-term chest and large breast examiners.

B-1711 14:24
Indications and the outcome of the mammography at Douala General Hospital
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Purpose: This study aimed to list indications and results of mammography and/or breast ultrasounds at Douala General Hospital to determine the proportion of routine mammographic screening.
Methods and Materials: This descriptive cross-sectional study was carried out at Douala General Hospital using pre-established data sheets. The study recruited all patients who met the selection criteria and reported to the radiology and medical imaging department for breast screening using physical examinations, mammography and/or ultrasounds.
Results: The study recruited 372 patients, 96.8% of whom were between 40 and 50 years old. The reasons given for the medical consultation were systematic screening (33.01%), pain (27.18%) and lumps (25.24%). Breast examination by inspection was normal in 87.1% of women, and by palpation in 66.7%. Mammography revealed nodular opacities (18.3%), spiculated images (4.3%) and micro-calcifications (3.2%), while ultrasound identified fibroadenomas (16.48%) and cysts (6.18%). Suspicious lesions (ACR 4 and 5) were discovered in 7.6% of cases by mammography and 8.51% of cases by ultrasound. The results indicated that there was no significant association between the use of clinical examination and mammography (p = 0.754). The use of clinical examination alone for breast screening may not be sufficient.
Conclusion: Our findings indicate that in Cemaroon, the routine screening mammography accounts for less than one-third (33.1%) of all indications. Benign lesions were most common; however, 7.6% and 8.51% of suspicious malignant lesions were observed using mammography and ultrasound, respectively.

B-1712 14:32
Early detection of breast cancer education via interprofessional E-learning: the EBreast project
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Purpose: The project "Education and training in early detection of breast cancer for health care professionals" (EBreast) funded by EU was started in 2015 with the goal of studying and developing health care staff competencies related to early detection of breast cancer.
Methods and Materials: An evidence-based developmental method was applied for education and training in early detection of breast cancer for health care professionals (the EBreast project). The learning modules were evaluated according to the relevance of the content, technical quality and achievement of learning outcomes by health care students and professionals in the five European countries.
Results: Health care staff (biomedical laboratory scientists, midwives, nurses, public health nurses, radiographers) competency needs related to the breast cancer diagnostic chain focused on an interprofessional way of working and patient communication, on technical performance of mammography, and on related further examinations as well as on quality assessment. To achieve these objectives, the learning material package was developed based on the evidence provided by expert opinion and research results.
Conclusion: Teaching multifaceted health care processes such as the diagnostic process of breast cancer interprofessional education is as means of ensuring client-centred high-quality services to the patient. The core benefit of open access E-learning is easily accessible material, regardless of time zone and geography, creating the opportunity for equity in education and harmonized health care practices in Europe.

B-1713 14:40
Acceptable quality dose for mammography: a guide for practitioners in developing countries
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Purpose: Acceptable quality dose (AQD) is a reference dose value or suggested standard dose that is used as an optimisation tool capable of producing good quality images in diagnostic radiological examination. The purpose of the study is to evaluate the AQD for mammography in a Nigerian Hospital.
Methods and Materials: The study is a prospective cross-sectional study conducted in a Nigerian teaching hospital, 30 patients who came for mammography examination were enrolled in the study. Thermoluminescent (TLD-LiF) dosimeter chips were used for dose assessment for cranio-caudal and mediolateral oblique views while image quality was assessed using European guidelines. Analysis was carried out using Statistical Package for Social Sciences version 23.0 Chicago, USA.
Results: The result shows an average mean glandular dose (MGD) of 0.63mGy and a mean CBT of 1.95mm. The range of MGD for cranio-caudal view and mediolateral oblique (MLO) were 0.88mGy and 1.67mGy, respectively, and the range ESD for CC and MLO were 0.01-6.03mGy and 0.01-3.47mGy, respectively. Most patients' examinations were within acceptable quality doses with percentage score from 60% to 80% for doses and image quality assessment using European guidelines. Patient dose increased with increase in compressed breast thickness (CBT).
Conclusion: AQD has a number of inbuilt advantages because it considers crucial parameters in radiation dose estimation and useful for the formulation of optimisation guidelines and etiquette for countries and regions globally.

B-1714 14:48
Optimization of radiation doses and image quality for mammography examination
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Purpose: The purpose of the study was to evaluate mean glandular dose and compare with reference dose levels and determine the relationship between compressed breast thickness (CBT) and mean glandular dose (MGD). To assess the image quality in comparison with European Guidelines.
Methods and Materials: A total number of 30 dose values and mammogram of the patients was evaluated. IAEA dose survey was used for collecting data from records of mammography examination. Information such as patient age, weight, body mass index, compressed breast thickness and technical parameter (kVp, mAs, tube Filtration) and European Commission Image quality template was used for assessing image quality. Mean glandular dose (MGD) was calculated and statistical package for social sciences was used for analysis. Pearson's correlation was used to determine the relationship between CBT and MGD.
Results: The result shows an average MGD of 0.534 mGy and a mean CBT of 1.95 cm. The range of MGD for cranio-caudal (CC) and medio-lateral oblique (MLO) were 0.00-0.91 mGy and 0.00 - 1.67 mGy, respectively, and the range entrance skin dose for CC and MLO were 0.01-6.01 and 0.01-3.47, respectively. A correlation of 0.484 and 0.052 for CC and MLO respectively was gotten between the CBT and MGD. Image quality criteria fulfilled the requirement of European Guidelines with 80% total score.
Conclusion: The average of MGD was 0.53mGy. The MGD does not depend on the CBT. The images obtained are within acceptable limit
Author Disclosures:
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B-1715 14:56
A core curriculum for the breast radiographers working in Italy
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Purpose: According with the EU Parliament Resolutions on Breast Cancer, all member States were invited to establish a network of certified and interdisciplinary breast units which meet Eusoma's requirements and quality criteria, in order to ensure that women with breast cancer have the right to be cured in centres that ensure quality and efficacy standards. A characterizing element of the Breast Units is the specialisation of the multi-disciplinary team