were undertaken in patients with primary operable BC (n = 466). Secondly, protein levels of one of the target receptors for beta-blockers, β_2AR, was assessed as a candidate biomarker of clinical outcome using tissue microarray and immunohistochemistry (n = 689 cases).

Results: 92/466 patients received antihypertensive treatment and 43/92 (46.7%) BC patients were on beta-blocker treatment at the time of BC diagnosis and they showed a significant reduction in formation of distant metastases ($p = 0.03$) and local recurrence ($p = 0.003$). Moreover, they showed increased survival and 71% reduced risk of BC specific mortality, indicated by a hazard ratio of 0.288 ($p = 0.007$).

β_2AR protein expression was significantly increased in small tumours ($p = 0.006$) of low grade ($p < 0.001$) and lymph node stage ($p = 0.027$), characterized by positive association with luminal markers (CK18, ER, PgR: all $p < 0.001$). β_2AR expression did not significantly predict clinical outcome.

Conclusions: Beta-blocker treatment appears to significantly reduce metastasis and mortality in BC patients. Measurement of one of the beta-blocker target receptors, β_2AR, was not shown to be predictive for determining clinical outcome and other beta-blocker targets need investigating. Further studies are needed to validate the use of beta-blockers as a possible adjuvant therapy in BC.

Friday, 26 March 2010 15:30–17:00

EUROPA DONNA SESSION

Implementation of the European Union Guidelines for quality assurance in breast cancer screening and diagnosis

446 Invited

Breast specialist perspective

M. Rosselli del Turco[1]. [1]*EUSOMA, President, Florence, Italy*

Since 1990, in USA and many European countries, breast cancer mortality is decreasing by 1−2% per year, thanks to early detection and improved treatment. Breast cancer care is complex, onerous and expensive; therefore quality assurance is essential to monitor effectiveness and to guide improvements in healthcare.

In Europe there are wide differences in breast cancer care in terms of quality and offer of screening and treatment (mastectomy and radiotherapy rates, use of adjuvant chemotherapy and hormone therapy). It has also been shown that high quality screening programs and specialized breast cancer care are associated with a significant reduction in mortality.

The European Guidelines for Quality Assurance in Breast cancer screening and diagnosis (EG) were published in the first edition in 1993 under the scientific co-ordination of EUREF and were periodically updated: the current edition is the fourth, published in 2006. The first task of the EG was to improve the quality of the screening test (mammography): the protocol for physico-technical quality control of conventional mammography is a worldwide reference document, such as the protocol for quality assurance of digital mammography, included in the last edition. Then guidelines for epidemiology, pathology, radiology, training and communication have been developed within the European Cancer Network and, in co-operation with EUSOMA, different aspects of quality in breast cancer care as multidisciplinarity, surgical treatment and requirements of a breast unit, have been defined. All these documents are included in the fourth edition and represent a comprehensive document that all European breast-dedicated services should strictly follow.

The major tasks now are:

– to assure a periodic update of the EG according to new technologies and clinical evidence
– to expand quality assurance to other aspects of breast cancer care as medical treatment, radiotherapy, follow-up and patient support.
– to verify that the EG are effectively implemented in all Europeans countries.

It has to be noticed, anyhow, that the great success of the EG was due to the recognised professional skill of the AA, fully dedicated to breast cancer care, who have been able to demonstrate that quality can be reached by following standardised procedure and protocols.

447 Invited

Mammography screening − what is going on in Europe

L. Von Karsa[1]. [1]*IARC, Quality Assurance Group, Lyon, France*

Introduction: Europe leads the way world-wide in implementation of population-based screening. Breast cancer claims the lives of more women than any other cancer. According to 2006 estimates of the International Agency for Research on Cancer, 330,000 women in the EU are diagnosed with breast cancer and 90,000 women die from the disease every year [1]. In 2003, the Council of the European Union invited the EU member states to implement mammography screening programmes for women 50−69 years of age according to European Guidelines for quality assurance in mammography [2]. A Citizens' Guide to the EU Guidelines [5] has been published by Europa Donna, the European Breast Cancer Coalition. The ECN has also examined the extent to which population-based breast screening programmes recommended by the Council of the EU have been implemented in Europe.

Methodology: In 2007 a questionnaire was sent to the 27 EU member states by DG SANCO. Data from two pan-European projects in the EU Health programme were used to check plausibility and to supplement the data base: ECN and EUNICE (European Network for Information on Cancer). Population statistics were obtained from EUROSTAT or from national sources, if more recent data were available. The final report was based on information provided by official sources in all EU 27 member states.

Results: In 2007, publically mandated breast screening programmes were running or being established in 26 of the 27 EU member states. Population-based programmes were running or being established in 22 member states. In the member states which have adopted a population-based approach for breast cancer screening, the smallest target age range was 50−59 years and the largest age range was 40−74 years.

The greatest uniformity is reflected in the recommended screening interval which only exceeded a two-year period for women in the age group 50−69 years in two of the 26 member states.

Development and piloting of an EU-wide accreditation/certification scheme mandated by the member states and based on EU quality assurance guidelines would encourage programmes throughout the EU to take the initiative to continuously improve perfor-mance and would help consumers to recognize which services achieve the EU standards.

Conclusions: Despite the broad consensus among the EU member states in the expanded EU on the importance of population-based screening as a tool of cancer control, considerable effort will be required over the coming years to successfully implement current policies and to overcome existing barriers to successful programme implementation.

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[4] Perry N, Broeders M, de Wolf C, et al. European guidelines for quality assurance in breast cancer screening and diagnosis. Fourth edition-summary document. Ann Oncol 2008 19(4): 614−22.
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448 Invited

Advocacy perspective

S. Knox[1]. [1]*European Breast Cancer Coalition (EUROPA DONNA), Executive Director, Milan, Italy*

The overriding mission of European breast cancer advocacy is to ensure that all European women have information on and access to state-of-the-art early detection, screening, and treatment of breast cancer. A main objective of Europa Donna-The European Breast Cancer Coalition (ED), has been to establish advocacy groups in all the countries of Europe in order to advocate for guidelines for best practice, i.e. implementation of the 2006 "European Guidelines for quality assurance in breast cancer screening and diagnosis" published by the European Commission. This has been our priority for the last few years and continues to be so for the foreseeable future until all women have access to these essential services for their breast health. ED uses this document as the basis for all its information, advocacy and lobbying programmes today. It is highlighted at all our conferences, at our advocacy training course, on our website and has even