Multidisciplinary training for Senologists: experience of the Piedmont region

Authors: Mano M.P.[1], Bordon R.[1], Frigerio A.[1], Pietribiasi F.[2], Ponti A.[1], Rovea P.[3], Tomatis M.[1], Scamuzzi M.[4] and FIM group.

[1] Unit of Epidemiology – Centre for Oncological Prevention (CPO), Turin - Italy

[2] Unit of Pathology – ASL TO5 S.Croce Hospital, Moncalieri (Turin) - Italy

[3] Unit of Radiotherapy II – SGAS – Molinette Hospital (Turin) – Italy

[4] Unit of Surgery – Martini Hospital (Turin) - Italy

Introduction

The guidelines on breast cancer [1-6] recommend the establishment of "Multidisciplinary Breast Units". Therefore it is necessary that cases of breast disease are followed by a team consisting of specialists properly trained. Lack of multidisciplinary training is responsible not only for late diagnosis and under-treatment but also of over-treatment, with aesthetic and functional results disabling, avoidable through coordination of procedures; furthermore the literature shows that patients treated by well trained specialists have a better survival [7].
The training projects for Senologists must be able to provide:
1) the ability to access, critically, to the scientific literature
2) the ability to participating in research trials
3) the most recent and updated technical skills within its own discipline and knowledge of other professionals involved in the team
4) to monitor its business practice through software, as such QT [8] that measures the indicators of quality of diagnosis and treatment
5) councelling with the patient and within a working group [9]
6) the ability to teach and pass on their experience.
Training is most effective when based on practical experience and theoretical lesson emerges from questions raised during the handling of the case,
in addition the training process can be considered effective if there is a feedback on the daily professional activities.

Material and methods

In Piedmont region is in the process of testing a draft training (FIM) funded by the Regional Oncology Network and with the University Master's degree in Senology, in which specialists in training, followed by a tutor, present clinical cases accompanied by radiographs and microscopic slides both during pre and post-operative: the case is discussed with the multidisciplinary team of tutors in the classroom and with the involvement of team of teachers (Figure 1-2).
The surgery is performed in workplace learners under the supervision of a tutor, who not only verifying the level of training, but also logistical and organizational problems peculiar to that place. Finally the case is placed in an archive (QT) [8] which allows the calculation of quality indicators for diagnosis and treatment.
The period 2006-2010 were held 53 meetings on a monthly basis and were presented 98 cases. Emerged from the discussion of these the need of further developments and/or updates that generated a series of training events (see table 1): some of the cases and lectures have been incorporated into an educational web site (www.fimcasiclinici.it).
To evaluate the usefulness of the FIM were chosen a data set of screen-detected cases for period 2006-2007 and were analyzed
1) the indicators of quality and
2) has been verified, through a questionnaire, the effective compliance of the requirements (based on guidelines and Eusoma criteria) of the Breast Units.
The results have been associated with the centres that have attended the training (presence of more specialists with a frequency of at least one third of the meetings or only one specialist at a frequency of at least half of the meetings: FIM +) to others (FIM -) and compared with the volume of activity of the centres (low volume <50 new cases per year, medium = 50-150, high> 150).
Table 2 shows the distribution of cases treated for training and volume of activities of the centres.

Results

Multivariate analysis of the results (Table 3) shows that the FIM+ significantly influence the achievement of "target" and that is independent of the volume of activity for some important indicators. In fact, for example, centres that have training, during which it has reiterated the importance of proper and thorough pre-operative framework decision on the impulse of subsequent acts, have a **positive preoperative diagnosis (C5-B5)** in a higher percentage cases and almost always reach the indicator "**no frozen in the T <1cm**", goal, however, not reached by the FIM- centres. At FIM+ centres the **immediate reconstruction** when mastectomy, is done significantly more since the presence of plastic surgeons in the FIM discussions brought a spread of reconstructive techniques. In trained centres, also thanks to the deployment, during seminars and lectures, of guidelines and consensus documents to update information on the enlargement of the indications of the **sentinel node biopsy**, this method alone **in cases pN0** is performed in 95% of cases , target desirable, not reached by other centres.
As a result, only partly unexpected, as regards excessive use of sentinel node biopsy in "in situ" lesions of low/average grading and limited sizes, is significantly negatively related to training, as ability to perform the technique.
On the indicator on the correct axillary dissection (> 9 lymph nodes removed), however, has an impact only the volume of cases handled: in fact training was not performed on this aspect and as expected is the experience that implements the technical capacity.
Regarding adherence to the requirements listed in the guidelines for the Breast Unit, was sent a questionnaire to 20 centres (15 currently have responded) that cover at least 50 new cases x years.
Table 4, which shows the results divided for FIM and volume, shows that the multisciplinarity (presence of all the dedicated specialists in the service) and the easiness to have the availability to rehabilitation service (FKT) for the patients are related to volume and not FIM training.
The multidisciplinary discussion of all clinical cases (GIC), which represents the most important requirement of the Breast Units, is regularly conducted in 7 of 8 centres FIM + and at all centres with high volume and FIM +
For other requirements analyzed, the formation (FIM +) seems to have an impact especially in medium-volume centres.
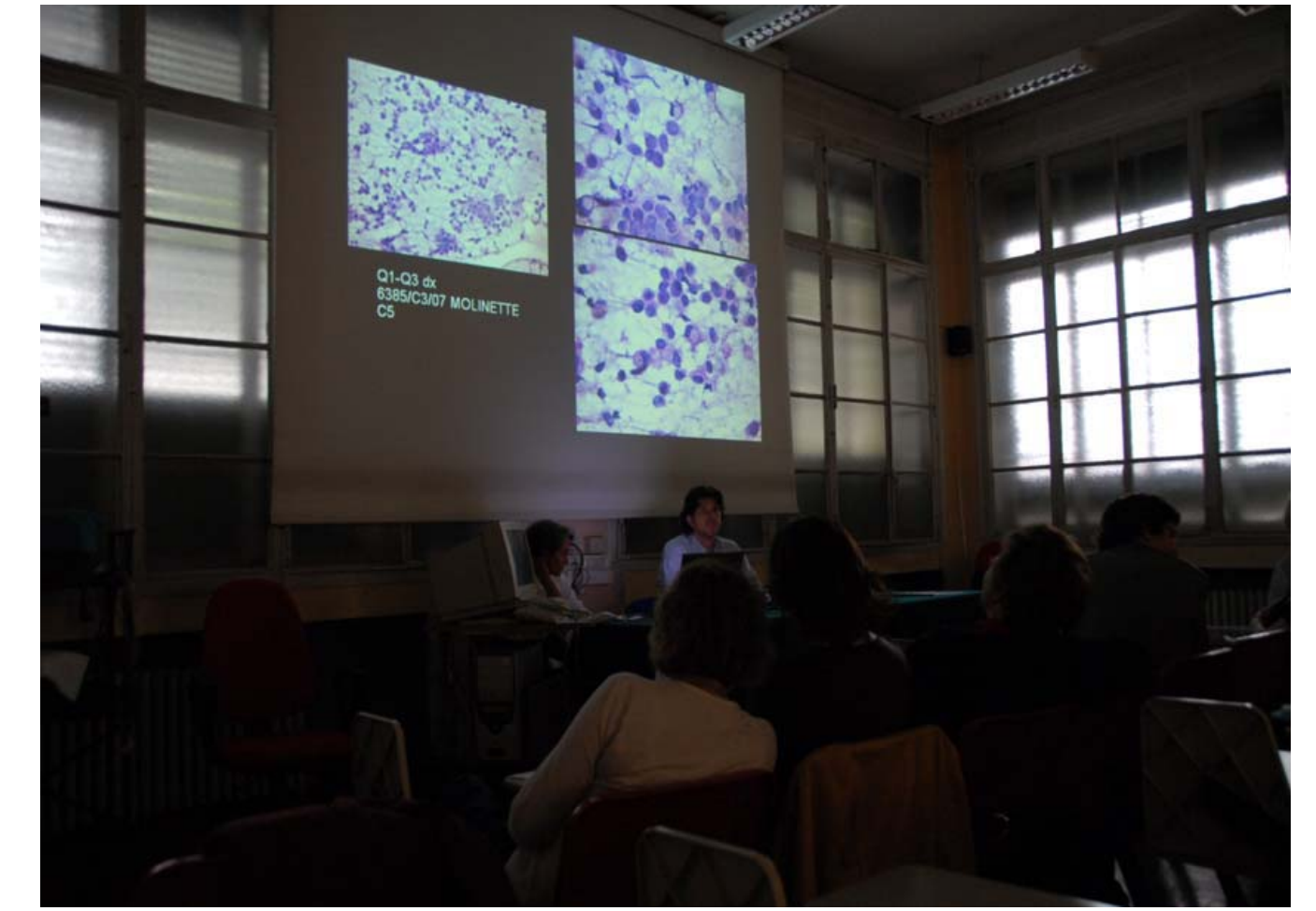

Figure 1-2. FIM sessions

Table 1. Seminars and lessons

- ➢ residential seminars in communication skills
- ➢ role of primary chemotherapy and neoadjuvant hormonotherapy
- ➢ updates on Follow Up, Radiotherapy, PET and RM
- ➢ medico-legal aspects and complications of treatment in breast cancer
- ➢ using SQTM database
- ➢ histopathology of sentinel node biopsy: regional guidelines
- ➢ predictive and prognostic factors in breast cancer: quality control in piedmont
- ➢ counselling in oncology
- ➢ functional outcomes after reconstructive and conservative surgery
- ➢ treatment of screen-detected cases
- ➢ oncoplastic surgery in breast pathology
- ➢ consensus on "nipple-areola sparing" mastectomy
- ➢ vacuum assisted biopsy and B3 histological diagnosis

Table 2. Cases screen-detected distribution for volume and training

VOLUME (number of new cases/year handled)	Trained centres (FIM +)	Untrained centres (FIM -)	Number of cases
< 50	0	29	29
50-150	146	148	294
>150	173	267	440

Table 3. Quality indicators for training

Indicators	Global results %	Target %	FIM- %	FIM+ %	Crude OR	p-value	Adj. OR*	p-value
Positive preoperative diagnosis	75.3	70	73.3	80.8	1.53	0.018	1.55	0.021
Only sentinel node in pN0	89.7	95	87.1	94.7	2.65	0.010	2.59	0.022
No sentinel node in DCIS (G1/G2)	54.2	90	69.4	32.3	0.21	0.002	0.22	0.009
Immediate reconstruction in pN0 (DCIS and invasive max 3 cm)	58.3	80	52.8	72.4	2.35	0.070	3.86	0.017
No frozen section in T <1 cm	77.0	95	70.9	91.5	4.43	0.002	4.00	0.009
No. of lymph nodes removed > 9	91.1	95	90.6	92.6	1.30	0.660	1.10	0.870

* Column Adj OR reported the odds ratio adjusted for volume of activity.

Table 4. Number of centres for EUSOMA requirements, volume business' and training

	Multi disciplina-rity	GIC	QT use	Sentinel Node	FKT	N. of centres
>150 and FIM+	4	4	1	1	1	4
50-150 and FIM+	2	3	2	3	2	4
> 150 and FIM-	2	0	1	1	0	3
50-150 and FIM-	3	2	1	1	2	4
TOTAL	10	9	5	6	5	15

Conclusion

Analysis of the results shows the effectiveness of training conducted under this model since it gave the possibility to change the way we work by encouraging group interaction and allowing the improvement of individual indicators and the compliance with the requirements of the Breast units. The FIM+ significantly affected the achievement of targets and, for some important indicators, irrespective of the volume of activities. Instead multidisciplinarity was correlated with the volume and discussion of all clinical cases are regularly conducted in most FIM+ centres and at all centres with high volume and FIM+.
Unfortunately, the logistics and organizing the necessary resources, in economic terms and timing, are challenging and the difficulty of coordination is remarkable.

References

1) EUSOMA. The requirements of a specialist breast unit: position paper. Eur J Cancer 2002; 36: 2288-93. Revised version published in N. Perry, M. Broeders et al.
2) European guidelines for quality assurance in breast cancer screening and diagnosis. Fourth edition-summary document. Perry N, Broeders M, de Wolf C, Tornberg S., Holland R. Von Karsa L. Ann Onc 2008 Apr 19(4): 614-622
3) L. Cataliotti et al. Guidelines on the standards for the training of specialised health professionals dealing with breast cancer. EurJ Cancer 2007 mar(4); 43: 660-675
4) Winchester D.P.; Kaufman C., Anderson B., El-Tamer et al. The National Accreditation Program for Breast Centers. Quality improvement through interdisciplinary evaluation and management. Bull Am Coll Surg 2008 Oct;93(10): 13-17
5) Forza Operativa Nazionale sul Carcinoma Mammario I TUMORI DELLA MAMMELLA guida sulla diagnosi il trattamento e la riabilitazione, Marzo 2001
6) Regione Piemonte - Gruppo sul Tumore della Mammella della Commissione Oncologica Regionale - Documento conclusivo - luglio 1999.
7) Roohan PJ, Bickell NA, Baptiste MS, Therriault GD, Ferrara EP, Siu AL. Hospital volume differences and five-year survival from breast cancer. Am J Public Health 1998; 3:454-7.
8) M.P.Mano, V.Distante, A.Ponti, N.Segnan, R.Bordon, R.Simoncini, L.Cataliotti. Gruppo di trattamento.G.I.S.Ma., Monitoraggio e promozione della qualita' del trattamento del Carcinoma Mammario nelle Unità di Senologia e nei Programmi di Screening in Italia(Supplemento su Attualità in Senologia n.1 anno 2001)
9) Fellowes D, Wilkinson S, Moore P. Communication skills training for health care professionals working with cancer patients, their families and/or carers. Cochrane Database Syst Rev. 2004;(2):CD003751. Review.