San Antonio 2020 update—the top 3 surgical abstracts

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Summary The San Antonio Breast Cancer Symposium is one of the largest meetings addressing the treatment of breast cancer patients; therefore, the meeting is of high interest for breast cancer specialists from around the world.

From the meeting in 2020, which was held virtually, I have picked the top three surgical abstracts to show new developments in the surgical treatment of breast cancer patients. The first abstract addresses the question of whether an axillary dissection is necessary or not, in a selected patient cohort. The results, even after a short follow-up time, could confirm the findings of the ACOZOG Z0011 trial.

The second abstract refers to the question of whether sentinel node biopsy is always mandatory in older patients with hormone-receptor-positive breast cancer. Finally, the third abstract focuses on a trial dedicated to the sentinel lymph node after neoadjuvant chemotherapy. These three abstracts show the importance of the surgical management of the axilla, under special circumstances.

Keywords Breast cancer · Axilla dissection · Sentinel lymph node biopsy · False-negative rate · Sentinel detection rate

Sinodar One trial

The first abstract is dedicated to the question of whether or not to perform axillary dissection.

The Sinodar One trial is an ongoing two-arm randomized multicenter trial, comparing sentinel lymph node biopsy (SNB) alone vs. SNB followed by axillary lymph node dissection (ALND), in patients with clinically node-negative axilla, but one to two macrometastasis in the sentinel node biopsy.

Patients between the age of 40 and 75 years with T1-T2 tumors who underwent breast-conserving therapy or mastectomy were included in this trial.

The primary endpoint was overall survival, with the secondary endpoint being disease-free survival, distant metastasis-free survival, and locoregional recurrence.

The two arms were well balanced, with 446 patients in the SLNB arm and 442 patients in the SNB + ALND arm. The breast-conserving rate was comparably high, with 79.9% in the SNB arm and 76.9% in the ALND arm.
The preliminary results after a short follow-up of 30 months confirm the results of the ACOZOG Z0011 study, with only one (<0.01%) axillary recurrence in the SNB group (Table 1).

The 5-year cumulative incidence for any recurrence is supposed to be 4.9% in the SNB arm and 6.5% in the ALND arm.

**Sentinel node biopsy in older patients—an interesting topic**

The title of the next surgical abstract about the axilla is “Sentinel node biopsy should not be routine in older patients with ER positive breast cancer.”

The background for this study is the fact that older women (>70 years) represent roughly 41% of all newly diagnosed breast cancer cases; therefore, this is a large patient cohort that we are having a closer look at [3]. Multiple studies have suggested that breast cancer in older women is less aggressive, and it has been found to be highly responsive to hormonal therapy [4].

The inclusion criteria were clinically node-negative disease, patient age over 70 years, early-stage disease, hormone receptor-positive, HER2-negative invasive breast cancer. The question addressed in the abstract was whether it is generally necessary to perform a sentinel node biopsy at all in patients meeting the inclusion criteria.

The results of this Canadian study showed that of the 2662 woman who were included in this trial, 1999 had a negative SNB, and within a follow-up period of 5 years it was shown that regardless of whether the SNB was positive or not, the breast cancer-specific survival was equal if the patients received endocrine therapy (Fig. 1).

These results raise various questions, including “Why should we withhold SNB, when we know that in experienced hands this is a treatment with barely any side effects such as lymphedema?” Another question that arises with this procedure is that the more we force the surgical de-escalation of the axillary region, the more escalation of postoperative radiotherapy treatment we see in these patients.

**The RISAS trial—sentinel node after neoadjuvant chemotherapy**

The RISAS trial addresses the question of which surgical strategy to follow in the axilla after neoadjuvant chemotherapy in women with breast cancer [5, 6].

The topic of targeted axillary dissection is one that is addressed in various clinical trials such as the RISAS trial.

The RISAS trial is a multicenter trial, and its results were presented at the last year’s SABCS [7].

The aim of this study was, with the aid of a radioactive seed that was applied to clinically positive lymph nodes prior to neoadjuvant chemotherapy, to find positive lymph nodes after neoadjuvant chemotherapy and thus be able to specifically remove this targeted lymph node with sentinel node biopsy.

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**Table 1** Comparison of results between Sinodar One and ACOZOG Z0011 studies

| Sinodar One | ACOZOG Z0011 |
|-------------|--------------|
| **SLNB**    | **ALND**     |
| N = 446     | N = 442      |
| Median tumor size | 1.8 cm  | 2.0 cm |
| ER+         | 81%         | 83%    |
| Median #LN removed | 2       | 16     |
| SLN macrometastases | 99.6%  | 99.8%  |
| Surgery     |             |        |
| Breast-conserving surgery | 79.9%  | 76.9%  |
| Mastectomy  | 20.1%       | 23.1%  |
| Outcomes    |             |        |
| Follow-up   | 2.5 years   | 6.3 years |
| Axillary recurrences | 1 (<0.01%) | 0 |
| ALND lymph node dissection, ER+ estrogen receptor positive, LN sentinel lymph nodes, SLN sentinel lymph node biopsy |

**Fig. 1** Results of sentinel lymph node biopsy in older patients. (From [10], modified from [4]. With kind permission. This figure is not included under the Creative Commons CC BY license of this publication)
Of special interest in this trial was the identification rate, false-negative rate, and the negative predictive value.

With conventional sentinel node biopsy, we reach an identification rate of 89%, a false-negative rate of 17%, and a negative predictive value of 57–86%. The MARI trial, which uses an already established procedure [8, 9] and was used for comparison, reached an identification rate of 97%, a false-negative rate of 7%, and a negative predictive value of 83.3%. But this still means that one of six lymph nodes rated as ypN0 were finally ypN+ and the radioactive seed was applied to a non sentinel lymph node.

The RISAS trial results show a considerably very good identification rate of 98%, a false-negative rate of only 3.5%, and a negative predictive value of 93.6%, which means that one of 16 (1:16) lymph nodes rated as ypN0 was truly positive.

These data illustrate in an impressive way the significant role of sufficiently marking clinically positive lymph nodes prior to the initiation of neoadjuvant chemotherapy.

**Take-home message**

It is exciting to know what is next in the surgical management of the axilla. The follow-up data of large ongoing clinical trials will reveal whether a further de-escalation of the surgical treatment is possible and safe and what this means for the patients we treat.

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