

P3-23-07 - Radiation induced angiosarcoma of the breast: Chemotherapy for radiation induced angiosarcoma of the breast - An individual participant data meta-analysis of Japanese population

📅 December 9, 2021, 7:00 AM - 8:30 AM

📍 Hall 1

Authors

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Disclosures

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Abstract

Background: Radiation-induced angiosarcoma (RIAS) of the breast is a very rare disease. Previous studies from other countries have been reported that patients having RIAS has a poor prognosis, and the efficacy of chemotherapy is still controversial. However, the prognosis of RIAS and the prognostic impact of pre- or postoperative chemotherapy for RIAS in Japanese population are not well known. Our study aimed to assess them in Japanese population using publication data with the cases from our institute. Methods: We obtained 36 Japanese patients data from thirty-four original articles from 2007 to 2020 and 3 patients from our database. Clinicopathological data including age at diagnosis of RIAS, surgery for RIAS, pre- or postoperative chemotherapy for RIAS, regimen of chemotherapy, tumor size, stage for primary breast cancer, and systematic treatment for breast cancer were collected. We assessed disease-free survival (DFS), distant disease-free survival (DDFS), and overall survival (OS) using Kaplan-Meier survival curves and log rank test. Hazard ratios were estimated from Cox models. Results: The median age at diagnosis of RIAS was 73.0 years (range, 32-89 years). A median follow-up period was 22 months (range, 6-84 months). RIAS developed on the breast in 36 patients (92.3%) and on chest wall in 3 patients (7.7%). Thirty-six patients (92.3%) underwent surgery. Chemotherapy was administered to 13 cases (33.2%); preoperatively in 3 patients and postoperatively in 10 patients. All patients had received taxane-based chemotherapy. The median size of tumor in pathological examination was 43.5 mm (range, 9-100 mm). There was no difference of patient's characteristics between patients with or without chemotherapy. The median DFS period was 14 months (range 1-75 months), and the median OS period was 22 months (range, 6-84 months). Chemotherapy in addition to surgery significantly improved DFS period (19 vs 12 months, $p=0.027$), and DDFS tended to be prolonged by adding chemotherapy ($p=0.06$). However, chemotherapy did not improve OS ($p=0.878$). In multivariate analysis, age ≥ 70 years and no chemotherapy for RIAS were the independent poor prognostic factors for DFS. Conclusions: Our study showed that chemotherapy might reduce recurrence rate of RIAS in Japanese patients but did not improve OS. Further studies are warranted to confirm the prognostic impact and proper regimen of chemotherapy for RIAS.