

## Peer Review File

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### Reviewer A

**Comment 1:** Line 40 of the reference you added states that "radiation is the standard method because it improves overall survival." I suggest that you use the 2011 update to the EBCTCG meta-analysis. And radiotherapy is associated with a decreased risk of breast cancer death and recurrence.

**Response 1:** Thank you for reviewing our manuscript. We appreciate your comment and have thus used the 2011 update to the EBCTCG meta-analysis and inserted the following information in the text: "radiotherapy is associated with a decreased risk of breast cancer death and recurrence".

**Changes in the text:** We have modified our text as advised (see Page 11, line 229 / Page 3, line 44~45).

**Comment 2:** Line 41, the reference you cite does not demonstrate the data on radiation-induced dermatological complications. That reference demonstrated how the post-irradiation case report evolved. Kindly include the reference from Harper JL, The pathophysiology and management of skin toxicity associated with breast irradiation. *South Med J* 2004;97:989–993 or Porock D, Kristjanson L. Skin reactions during radiotherapy for breast cancer: the use and impact of topical agents and dressings. *Eur J Cancer Care (Engl)* 1999;8:143–153.

**Response 2:** Thank you for reviewing our manuscript. We appreciate your comment and have thus included such reference.

**Changes in the text:** We have modified our text as advised (see Page 11, line 232~235).

**Comment 3:** Additionally, please attach the original paper to the statement lines 43 and 44.

**Response 3:** Thank you for reviewing our manuscript. We appreciate your comment and have thus revised accordingly.

**Changes in the text:** We have modified our text as advised (see Page 11, line 236~239).

**Comment 4:** I would add if there are any signs and symptoms of systemic connective tissue disease, as well as blood test results, as you discussed scleroderma in the discussion section.

**Response 4:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the discussion section.

**Changes in the text:** We have modified our text as advised (see Page 5~6, line 108~117).

**Comment 5:** Please expand the review of the literature on post-irradiation morphea studies in the discussion section.

**Response 5:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the discussion section.

**Changes in the text:** We have modified our text as advised (see Page 6~7, line 129~153).

### Reviewer B

**Comment 1:** The general structure seems to be chaotic. The quality of English is poor, even for a non-native speaker but it could be improved. The manuscript contains grammar errors and typos. The text needs English proofreading by a native speaker to make it more concise.

**Response 1:** Thank you for reviewing our manuscript. We appreciate your comment and have sought an English proofreading service from a company.

**Changes in the text:** We have modified our text as advised by English proofreading service from a company and submitted Certificate of editing.

**Comment 2:** It's very interesting why the fact of injection of a foreign substance (30 years ago!) was not known during postoperative radiotherapy. Could you describe why? This fact is also not mentioned in your case report description. This is a bit weird. The case report should be described in a chronological order. Moreover, why did you not just ask a patient if she had undergone any kind of breast-related procedures in the past BEFORE mastectomy during differential diagnosis? It's not described but it should be.

**Response 2:** Thank you for reviewing our manuscript. We appreciate your comment. At that time, the operator was aware that the patient was injected with a foreign body in both breasts approximately 20 years ago. Nevertheless, surgery was performed to remove the breast cancer, and after adjuvant chemotherapy, radio-oncologists proceeded with radiotherapy, while being aware of the patient's history before surgery. We were aware that she was injected with a foreign body in both breasts before mastectomy by asking the patient. And we have modified our text that described in chronological order. We have added this information in the "Clinical history" subsection.

**Changes in the text:** We have modified our text as advised (see Page 3~4, line 60~83).

**Comment 3:** The title suggests that the article contains a literature review (narrative or systematic), but there is no such a chapter nor relevant data within the manuscript. It's just a simple case report.

**Response 3:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the discussion section.

**Changes in the text:** We have modified our text as advised (see Page 5~10, line 98~210).

**Comment 4:** "local control of recurrence" - is there any other type of local control?

**Response 4:** Thank you for reviewing our manuscript. We appreciate your comment and have thus deleted "local control of recurrence" and replaced it with another information.

**Changes in the text:** We have modified our text as advised (see Page 3, line 44~45).

**Comment 5:** "radiation-induced dermatological complications are very common in 90% of patients with breast cancer" --> could you define a "dermatological complication"? Radiation-induced dermatitis is not a kind of "dermatological" complication (like morphea). I would recommend you to write "radiation-induced dermatitis" or "skin changes".

**Response 5:** Thank you for reviewing our manuscript. We appreciate your comment and have thus changed the term "radiation-induced dermatological complications" to "radiation-induced dermatitis" or "skin changes".

**Changes in the text:** We have modified our text as advised (see Page 3, line 45).

**Comment 6:** "irritation and drying of, the skin is observed in the first 2 months.." --> the most common definition of early skin toxicity after irradiation is a skin reaction after 3 months post-RT.

**Response 6:** Thank you for reviewing our manuscript. We appreciate your comment and have thus changed "2 months" to "3 months".

**Changes in the text:** We have modified our text as advised (see Page 3, line 47).

**Comment 7:** "paraffin? oil?" --> it looks a bit weird, is it a radiological (mammography, MR, ultrasound) or clinical differential diagnosis?

**Response 7:** Thank you for reviewing our manuscript. We appreciate your comment. Approximately 30 to 40 years ago, illegal procedures for breast augmentation by non-medical personnel were performed in Korea. At that time, paraffin or oil was injected; however, in this case, it was not possible to determine exactly what kind of material was injected based on the breast MRI findings. Nevertheless, it was possible to infer that oil was injected on the basis of the pathologic findings after surgery. Therefore, we removed "paraffin? oil?."

**Changes in the text:** We have modified our text as advised (see Page 3, line 60).

**Comment 8:** "underwent radiation therapy of the right breast during 5 weeks" --> please provide details regarding underwent RT (fraction dose, total dose, boost).

**Response 8:** Thank you for reviewing our manuscript. We appreciate your comment and have thus provided details regarding RT (fraction dose, 180 cGy; total dose, 5940 cGy; boost, 900 cGy) for 7 weeks.

**Changes in the text:** We have modified our text as advised (see Page 4, line 70~71).

**Comment 9:** You should describe in detail the differential diagnosis, because it's the key part of your case report.

**Response 9:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the discussion section.

**Changes in the text:** We have modified our text as advised (see Page 7~8, line 154~165).

**Comment 10:** Figures are mentioned in the wrong order (2a then 2d?).

**Response 10:** Thank you for reviewing our manuscript. We appreciate your comment and have thus revised accordingly.

**Changes in the text:** We have modified our text as advised (see Page 5, line 91~92).

**Comment 11:** Whole discussion needs to be rewritten --> it's very chaotic, parts of the discussion look very random (see below).

**Response 11:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the discussion section.

**Changes in the text:** We have modified our text as advised (see Page 5~10, line 98~210).

**Comment 12:** Why did you discuss scleroderma and morphea at the beginning? It was not mentioned in your case report description. Was it a part of the differential diagnosis? If yes, it should be mentioned before.

**Response 12:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the “Clinical history” subsection.

**Changes in the text:** We have modified our text as advised (see Page 4, line 77~79).

**Comment 13:** "In conclusion, PIM is a rare complication of radiotherapy after breast cancer surgery." --> yes, I agree that it is, but it is not your finding and your case!

**Response 13:** Thank you for reviewing our manuscript. We appreciate your comment and have thus deleted the sentence and replaced it with another sentence.

**Changes in the text:** We have modified our text as advised (see Page 9, line 201~202).

**Comment 14:** In summary, I would recommend focusing on oleoma combined with radiation-induced changes rather than on the description of RIM/PIM.

**Response 14:** Thank you for reviewing our manuscript. We appreciate your comment and have thus modified the text in the discussion section, focusing on oleoma.

**Changes in the text:** We have modified our text as advised (see Page 8~9, line 176~191).

**Comment 15:** "Written informed consent was obtained from the patient." --> please provide the scanned form.

**Response 15:** Thank you for reviewing our manuscript. We appreciate your comment and have thus provided the scanned informed consent form from the patient.

**Changes in the text:** We have submitted the scanned informed consent form from the patient.

### **Reviewer C**

**Comment 1:** Page 2 line 41. Dermatological complications are very common or are observed in 90% not both.

**Response 1:** Thank you for reviewing our manuscript. We appreciate your comment and have thus revised accordingly so that removed the “in 90%”.

**Changes in the text:** We have modified our text as advised (see Page 3, line 45~46).

**Comment 2:** Page 2 line 43: skip: “from” Change “side effect” to “adverse effect” in the entire manuscript

**Response 2:** Thank you for reviewing our manuscript. We appreciate your comment and have thus removed the word “from” and changed the term “side effect” to “adverse effect” in the entire manuscript.

**Changes in the text:** We have modified our text as advised (see Page 2, line 47,50).

**Comment 3:** Page 3: line 56: “found” change to “examined”

**Response 3:** Thank you for reviewing our manuscript. We appreciate your comment and have thus changed the word “found” to “examined”.

**Changes in the text:** We have modified our text as advised (see Page 3, line 61).

**Comment 4:** Page 3: line 56: “work-up breasts” change to: “routine examination of the breasts”

**Response 4:** Thank you for reviewing our manuscript. We appreciate your comment and have thus changed the term “work-up breasts” to “routine examination of the breasts”.

**Changes in the text:** We have modified our text as advised (see Page 3, line 62).

**Comment 5:** Page 5 line 99: ANA: anti-nuclear antibodies

**Response 5:** Thank you for reviewing our manuscript. We appreciate your comment and have thus changed the word “ANA” to “anti-nuclear antibodies”.

**Changes in the text:** We have modified our text as advised (see Page 8, line 167).