

Neglected of Surgery in Post Radiation Ulcer of Breast Cancer Patient for Two Years: Lesson Learned from a Case Report

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Abstract

Introduction

Patients with cancer receive benefits from radiation therapy; however, it may have adverse effects on normal tissue such as causing radiation-induced ulcer. Radiation ulcers can be treated by stable wound resurfacing, following the radical removal of nonviable tissue including skin, fat, muscle, and sometimes bone. At a minimum, flaps are required to treat radiation ulcers.

Case

A 65-year-old woman with history of *sectio caesaria* underwent right modified radical mastectomy in December 2017 because of breast cancer (T2N0M0, stage IIB, HER2 positive). After the surgery, patient received three series of chemotherapy and eight series of targeting therapy Trastuzumab. She also received 60 Gy of radiotherapy during April 2018. Six months later, she got a fever with swelling, ulcer and painless at the surgery site considered abscess formation. Incision drainage was done with methicillin-resistant staphylococcus aureus positive in pus culture. Along of 2019, she got two times debridement, routine wound care, trial to primary suture, but no clinical improvement of irradiated wounds. In May 2020, we decided to perform wide excision and breast reconstruction using adjacent flap called Horse Shoe flap (created by Suryawisesa, Oncology Surgeon in Bali) on her with 7 months of follow up. The procedure provides good result and the patient was satisfied.

Discussion

Radiation ulcers will progress and become worse, because of the underlying ischemia, infection, and lower viability of granulation tissue. The most reliable method to treat a radiation ulcer is wide excision of the affected tissue, followed by coverage with well-vascularized tissue. Based on theory, 30-40 Gy of radiotherapy is effective for the surgical manipulation in irradiated area.

While 50-60 Gy, needed wide excision of irradiated skin because the effect impaired wound healing of radiotherapy. In this case, wide irradiated excision leaving a huge defect. The history of patient with *sectio caesaria* and risk of fibrotic in pedicle area of latissimus dorsi muscle post modified radical mastectomy makes TRAM and LD flap was not applicable. But with horse shoe flap techniques, it was possible to close a huge defect.

Conclusion

Radiation ulcers with high dose of adjuvant radiotherapy needs flap to defect closure, following wide excision of irradiation area. Horse shoe flap technique is recommended to close a huge defect of hard-to-heal ulcers post radiation in patient with breast cancer.

Keywords: Radiation ulcer, high dose of radiotherapy, horse shoe flap, breast cancer