

통증 및 근골격재활

게시일시 및 장소 : 10 월 18 일(금) 08:30-12:20 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 10:00-10:45 Room G(3F)

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Sacral Sore Treatment with Radiation-induced Fibrosis

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Radiation-induced fibrosis is a long-term side effect of radiation therapy for cancer. It is a result of a misguided healing response; local inflammation process ultimately evolves to a fibrotic change characterized by increased collagen deposits, poor vascularity, and scarring.. We report a case of sacral sore treatment in a patient with radiation induced fibrosis using multidisciplinary approach and negative-pressure wound therapy.

An 85-year-old female patient who had uterine cancer and radiation therapy history visited with complaints of coccyx pain, redness, and yellowish discharge with foul odor. She had uterine cancer in 1975 and received surgical cancer resection and post-operation radiation therapy for three months. She had a frequent GI problem after radiation, and experienced colon perforation in 1993 and received another surgical correction. There was no noticeable difficulty in performing daily activities independently afterward. In March 15th, 2019, the patient noticed pain and foul odor from coccyx area, but did not visit hospital at the time. The symptoms aggravated in following days, and the patient visited the emergency room and admitted for evaluation and abscess management. The patient was examined via contrast magnetic resonance imaging on pelvis area. The imaging study revealed pressure sore with abscess at sacrococcygeal region of 9-cm long, combined with osteomyelitis at lower sacrum and adjacent soft tissue infection (Fig. 1).

The patient started intravenous antibiotic treatment (cefazolin) and underwent surgical incision. The surgical incision revealed the broad infection at sacrococcygeal region and drainage of abscess was hindered by the fibrotic tissue, assumed to be formed from previous radiation therapy on uterus. After multidisciplinary review, the patient's antibiotics changed from cefazolin to ertapenem and she underwent weekly surgical incision and drainage on fibrotic infection site to remove gross inflammation.

After five surgical drainages, she showed improved inflammatory markers, yet the results suggested infection remained. We started using Alginate-Ag foam inside the sacrococcygeal pocket to drain the abscess from the fibrotic tissue for daily dressing; the foam showed limitation in draining the abscess from the fibrotic tissue. Following the 6th surgical incision and drainage, we applied negative-pressure wound therapy using CuraVAC® (Fig. 2). The wound was filled with polyurethane foam, cut as the shape of the abscess pocket, and non-collapsible tube, via suction head on the foam, was connected to the vacuum. Negative pressure of 125mmHg was applied, and maintained for three

days. Following negative pressure therapy, there was almost no visible drainage and the inflammatory marker returned to normal level; thus, negative pressure wound therapy effectively removed the tissue infection from fibrotic tissues.

We report the case of sacral sore treatment with radiation-induced fibrosis.

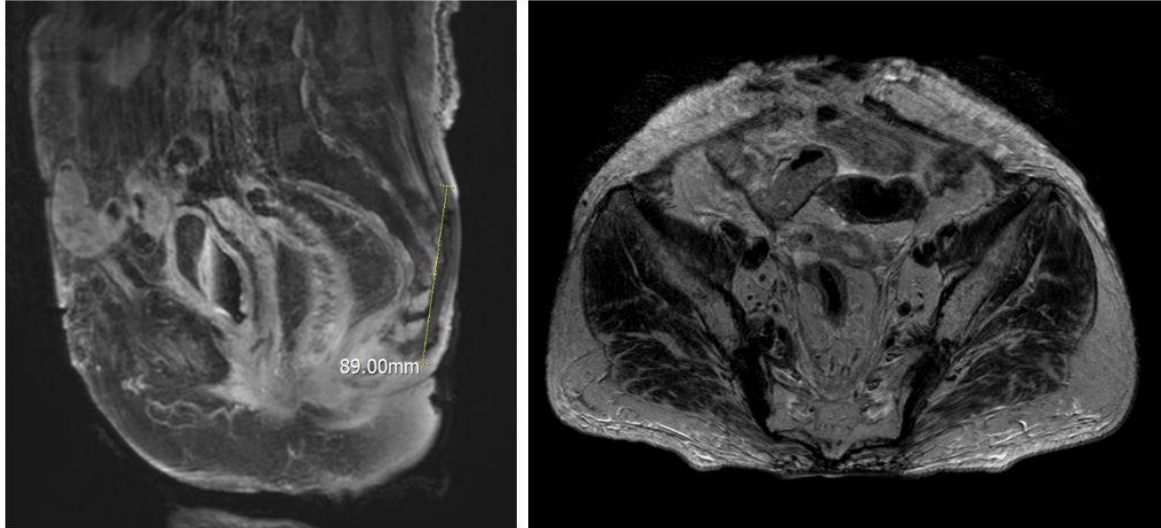


Fig. 1. Pelvis MRI (a, left) Sagittal view of sore with abscess at sacrococcygeal lesion (b, right) Axial view of the lesion



Fig. 2. Wound preparation before negative-pressure apply (a, left) Abscess pocket was filled with polyurethane foam and the protective dressing for adjacent skin (b, right) Negative-pressure abscess drainage from fibrotic tissue



Fig. 3. Gross wound appearance (a, left) At admission (b, right) After 4 session of negative pressure wound therapy