



## Radiation Therapy and Dermatitis

### 放射線治療與皮膚炎(英文)

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The skin is highly sensitive and easily damaged by radiation because the proliferative cells of basal layer are more likely to be affected by radiation than the epidermal cells of upper layer. Hence when the maturity of basal layer cells is reduced, the skin of radiated area will first become red, followed by pigmentation.

Early reaction is the skin reaction occurred from the 3<sup>rd</sup> week to the 6<sup>th</sup> month after radiation therapy, including skin rush, pigmentation, dry desquamation, wet desquamation, and falling hair.

The late reaction refers to the skin reaction in 6 months after the therapy, which could the epidermal, dermis and subcutanea. Skin symptoms include: atrophy, angiotelectasia, pigmentation, and fibrosis.

Serious skin reaction mostly occurs on the neck, lower edge of breast, axilla, perineum, and groin.

#### **Treatment Method for Therapy Area**

- Take a shower and use neutral soap to gently wash the radiated area. Avoid direct rubbing with the towel and finally rinse off the soap.
- Use mild baby' s shampoo to reduce skin irritation on radiated area. Use soft and dry towel to gently pad the radiated area dry or use the cold wind from the hair dryer to dry the hair.
- Avoid sunlight and use sunscreen when staying under the sun for over 15 minutes. Use hat, umbrella or sunscreen clothes to reduce sunlight exposure.

- Avoid friction and choose loose cotton cloths. Patient shall not wear clothes with collar when receiving radiation on the neck.
- Do not use cosmetics, perfume, baby oil, and shaving cream on the skin of therapy area. Other areas without affecting therapy are unlimited. Do not use cold or hot source such as ice bag, ice pillow and hot water bottles on the radiated area.
- To shave the radiated area, use electronic razor to prevent cuts. If bandage is needed, do not use tape on the area of radiation.
- Avoid swimming in ocean or swimming pool added with artificial disinfectant during the therapy period.

### Care for Dry Desquamated Skin

- Do not scratch itchy skin but can use steroid-based ointment or spray under physician instruction.
- Use the ointment prescribed by the physician to gently wipe the radiated area to reduce dryness. Use after radiation therapy and the time interval is 2~4 hours before radiation therapy.

### Care for Wet Desquamated Skin

- Use saline to rinse the wound and use empty syringe for cleaning to avoid friction.
- If there is large secretion from the wound, immediately replace the dressing when dampened.
- Do not post the scotch tap directly to the skin and radiated area. Apply the medicine prescribed by physician after daily therapy.
- If the wound is located on the perineum, use warm water sitz bath and promote the cleaning and comfort.
- In case of skin desquamation, do not tear off the surface skin but to keep it dry, ventilated and avoid infection.