Don’t Statement: Don’t use Aloe Vera on skin to prevent or treat radiodermatitis

Statement of Rationale:

Radiodermatitis can cause patient pain and pruritus that affect quality of life, body image, and sleep (Schnur et al., 2012). Severe radiodermatitis can necessitate dose reductions or treatment delays that negatively impact the ability to adequately treat the cancer. The incidence of radiodermatitis can be as high 95% depending upon the population of patients receiving treatment (Gosselin, Schnei, Plambeck & Rowe, 2010; McQuestion, 2011). Studies documenting incidence have primarily occurred in women receiving treatment for breast cancer.

Many internet sites market aloe to individuals for what is commonly termed “sunburn type” reactions from radiation therapy. Research evidence shows that aloe vera is not beneficial for the prevention or treatment of radiodermatitis, and one study reported worse patient outcomes with use of aloe vera.

Patients undergoing radiation therapy need to know that aloe vera should not be used to prevent or treat skin reactions from radiation therapy, since it has been shown to be ineffective and has the potential to make skin reactions worse.

Background:

Aloe has been used for medicinal purposes for centuries as a treatment for cuts, burns, and skin irritations. Aloe has reportedly been used since the 1930s for skin reactions from radiation therapy (American Cancer Society, 2011). Many patients think of skin reactions from radiation therapy as “burns” or “sunburn like reactions,” and so, may readily conclude that aloe will be helpful. Some health care providers continue to suggest use of preparations such as aloe vera gel for soothing radiation therapy-induced skin reactions. Patients may self-medicate with aloe vera based on inaccurate information about its efficacy found in the public arena and multiple internet sites.

Evidence:

- Aloe vera resulted in no benefit in several studies and systematic reviews. A small quasi experimental study showed that aloe vera-based gel was not as effective as a phospholipid-based cream to prevent effects on the skin and facilitate patient comfort among 45 pediatric patients receiving radiation therapy (Merchant et al., 2007).
- Two prospective randomized trials did not show a benefit of aloe vera gel to reduce the incidence of radiation therapy-induced skin toxicities (Heggie et al., 2002; Olsen et al., 2001).
• Systematic reviews have not provided evidence in support of the use of aloe vera for this purpose (Richardson, Smith, McIntyre, Thomas, & Pilkington, 2005; Salvo et al., 2010; Vogler & Ernst, 1999; Williams et al, 1996).

• Aloe vera was associated with higher toxicity in one meta-analysis (Kumar, Juresic, Barton, & Shafiq, 2010).

References:


induced skin toxicity. *International Journal of Radiation Oncology, Biology, Physics, 36,* 345-349. doi:10.1016/S0360-3016(96)00320-3