

Bolus Materials: Superflab and Aquaplast

Background

Bolus materials are utilized to overcome the skin-sparing effect that prevents appropriate dose administration during high energy radiation therapy.¹ Bolus materials can be comprised of natural or synthetic matter with a density resembling water or tissue.² Proper use and placement of bolus material is important, because air gapping between bolus and patient skin can create discrepancies between planned and provided doses.³

Superflab is a sheet of bolus material made of elastic and floppy synthetic gel that conforms to a patient's contour while maintaining thickness consistency.⁴ Superflab is single patient reusable product, available in varying thicknesses to provide the appropriate dosage build up based on treatment needs.⁴

Aquaplast RT is moldable bolus material softened by using hot water, which allows for product conformity to a patient's body. The conformity may minimize air gaps.⁵ Completed molds can be used for multiple treatments on the same patient.⁵

Clinical Evidence

- A 2006 case study found Aquaplast RT was an effective bolus material for lower extremity irradiation in a Kaposi's sarcoma patient.⁶ Authors noted that Aquaplast provided good conformity to a large area of uneven contours.⁶

Summary/Considerations:

There are no head to head studies or clinical literature comparing the use of Aquaplast RT to Superflab. While it appears that Aquaplast RT is able to conform well to oddly shaped areas there is a lack of head-to-head trials currently available to address any superiority.

References

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