CARING FOR A PATIENT WITH LYMPHEDEMA OF THE HEAD, NECK, CHEST AND UPPER BACK POST-LARYNGECTOMY COMPLICATED BY OSTEORADIONECROSIS

Dennis' past history included many years' smoking, and by late 1997, at the age of 50, he began having multiple complaints of pain in his neck and throat.
Manifesting these symptoms and having a history of laryngeal carcinoma with subsequent external beam radiation therapy of the anterior and posterior neck, upper chest, and upper back, by early March 1998, following a direct laryngoscopy, Dennis was diagnosed with a non-functioning larynx and complications of osteoradionecrosis.

A total laryngectomy was performed in late March 1998, and a permanent tracheostomy was made.
Because of severe radiation changes of the neck and upper chest, the skin, subcutaneous and muscle tissue were all hypo-vascular, woody, and necrotic. As a result, the neck wounds broke down post surgically leaving large open draining wounds and fistulas.

To facilitate wound closure and healing, over the insuing months surgical reconstruction of the neck began by designing a right DP flap (deltopectoral), a left PMC flap (pectoralis muscle), and the use of a split thickness skin graft taken from the right thigh.
By late October 1999, all neck wounds were healed and Dennis began vocal rehabilitation.

Throughout eighteen (18) months of surgical reconstruction, lymphedema also became a problem.
Since Dennis' head, chest and neck were affected bilaterally, by early February 2000, his lymphedema was causing severe discomfort, and after several attempts to reduce it by using conventional methods, Dennis was referred to our clinic by his ENT surgeon for evaluation and treatment.
Preceding Dennis' visit, detailed surgical reports were read thoroughly giving us an opportunity to tentatively outline protocol for therapy and prepare appropriate compression measures.

Upon Dennis' first visit on February 22, 2000, his chief complaints were:
severe headaches especially in the parietal and occipital head areas; discomfort around the eyes due to bulging of soft tissue; very reduced range of motion of the

neck due to scar adhesions and keloiding; inability to sleep; severe swelling of the face, cheeks, and chin; breakdown of the skin in radiated areas; severe coughing spells; and reduced ability to swallow solid foods.

Upon exam it was noted that Dennis' tracheostomy was in place and he conversed by means of a Blom-Singer Valve. Lymphedema was present throughout the head, neck - anterior and posterior, upper chest and back with severe fibrosis in the chin, lower cheeks, occipitus, and posterior neck. Dennis'eyes were nearly closed due to lymphedema of the upper and lower eyelids. In addition, the facial skin was very red, irritated and congested and Dennis was very concerned about large pimples appearing on his nose. All radiated skin was very dry and the surgical scars on the upper chest and anterior neck were rigid and very sensitive to touch. These scars extended almost entirely from right to left axillae. It was apparent after reading all surgical reports and examining Dennis, lymph was not passing anteriorly through normal channels. Protocol for manual lymph drainage was designed to move lymph in the opposite direction, upward over the face, forehead, top of head, and down back of head, neck and back into posterior axillae and inguinals.

After protocol for therapy was finalized, a detailed drawing outlining lymph movement served as the basic sketch for the fabrication of a specifically designed compression headgear and vest with directional flow. At Dennis' second visit, one week later, the first "prototype gear" was fitted prior to therapy. Within fifteen minutes (15) there was visable reduction, but more than that we had to be sure Dennis was comfortable wearing both garments. These garments would not only be important for maintaining his lymphedema, but also they would serve to soften surgical scars and fibrosis affecting a greater range of motion.

We began treating Dennis three (3) times each week. He was also instructed in self manual lymph drainage, intensive skin care of all affected areas, application and care of his "Legacy” (directional flow headgear and vest), and exercises to gradually increase range of motion of the neck. During treatment we followed strict therapy guidelines while Dennis

devised ways at home to move lymph into areas he could not reach, eg, using a small paint roller to move lymph down the back of his head and neck.
Daily use of A&D Ointment completely softened and "flattened out" the surgical scars
across the chest and there was evidence some lymph was moving through these areas.

As therapy progressed, Dennis was requested to write a daily log of events/progress/changes between therapy sessions.
This reduced the amount of time he had to talk before therapy thus diminishing his coughing episodes.
With each coughing incidence, lymph backed up into his face and eyes, decreasing
the effectiveness of MLD.
Dennis continued to state that with
each therapy session, his headaches reduced in intensity but the problem of lymph collecting and thickening at the back of his neck seemed to always challenge us.
We tried to devise ways to
meet this problem "one therapy at a time".
"Swell spots" were created for fibrotic areas such as the chin, lower cheeks,
and back of neck.
As fibrosis would build, sometimes overnight, these
"swell spots" gave Dennis the flexibility to
place them inside
his headgear in problem areas where he felt he needed more compression.

Dennis' facial skin had periods of "rosacea-like" appearance with extreme redness and breakouts.
Each coughing spell triggered
these symptoms and became a source of concern to him.
Light creams and moisturizers were used to reduce his facial congestion and relieve sensitivity and redness.

We continued to treat Dennis two to three times each week with intensive MLD in areas most needed.
Dennis' daily log informed us before each session what had occurred between sessions.
This dictated our treatment plan for the present session.

The past few years brought many changes in Dennis' life.
Through treating him we learned how daily physical changes, such as he experienced, could demoralize the spirit.

He taught us that no matter the situation, "fighting back" can bring a certain quality of life.
Our therapy continued to be "one therapy at a time" to meet his changing needs.

Submitted by - Phyllis Tubbs-Gingerich, RN,BSN,LE,CLT - Lymphedema Therapist (Vodder-LANA)

Ginger-K Center
16130 Juan Hernandez Or, Ste 108 Morgan Hi/l, CA 95037
Te/: 408-782-1028