


1st Annual MSKCC Cancer Rehabilitation Symposium

**Treatment Strategies
for Survivors of Hodgkin Lymphoma**


Sabi Varghese, PT, DPT
May 31, 2013



Memorial Sloan-Kettering
Cancer Center

© 2013 Memorial Sloan-Kettering Cancer Center. All Rights Reserved.


The presenter has no conflict of interest to report regarding any commercial product/manufacture that may be referenced during this presentation.



Memorial Sloan-Kettering
Cancer Center

Objectives

- Understand the clinical presentation of the Survivors of Hodgkin Lymphoma
- Understand the physical therapist's role in the multi-disciplinary management of these patients
- Identify key PT impairments
- Discuss treatment strategies
- Discuss rehabilitation challenges
- Review two case studies




Memorial Sloan-Kettering
Cancer Center

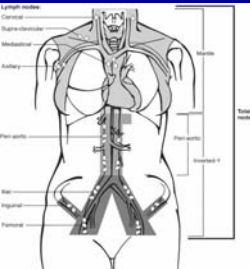
Survivors of Hodgkin Lymphoma

- Hodgkin Lymphoma
 - Cancer originating in the Lymphocytes
- Males & females in their 40-70's, treated in '70-'90s
- Radiation
- Surgery
- Chemotherapy

Devita V, Lawrence T, Rosenberg S, DuPino R, Warberg R, Devita, Hehran and Rosenberg's Cancer: Principles and Practice of Oncology, 9th edition, Philadelphia, PA Lippincott, Williams & Wilkins 2011




Radiation



- Radiation Fibrosis
 - Mantle field, periaortic, inverted Y
 - Biological side effects at multiple levels of the body
 - Chronic progressive condition that cannot be cured but MANAGED

Subklefeld MD. Radiation Fibrosis Syndrome. In: Subklefeld MD and O'Dell MW, editors. Cancer Rehabilitation: Principles and Practice. New York, NY: Elsevier Medical Publishing; 2009. 723-45.




Surgery

- Staging laparotomies & splenectomy
- 50% of abdominal surgeries result in adhesions
- Post-inflammatory adhesions after radiotherapy, dialysis
- Abdominal organs relation to the spine

Bruggmann D, Tzortzis O, Walleiner M, Mariani K, Treising HR, Hockenthal A. Intra-Abdominal Adhesions: Definition, Origin, Significance in Surgical Practice, and Treatment options. Dtsch Arztebl Int 2010; 107(44):760-76. DOI: 10.1055/s-0010-17947


Rosen, J., Meeker P. Vascular Manipulation. Seattle, WA: Eastland Press; 2005.

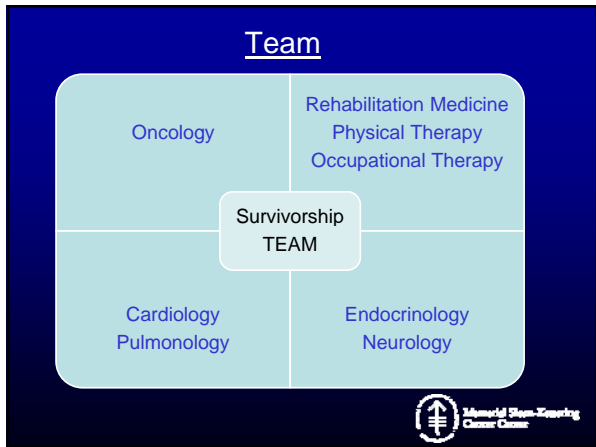


Chemotherapy

- **Cardiopulmonary**
 - Decreased ejection fraction, deconditioning
- **Musculoskeletal**
 - Joint Aches, osteoporosis, muscular weakness
- **Neuromuscular**
 - Cognitive, memory, motor control, balance, CIPN

Marzese, V, Morris, S, Gilchrist, L, Natta, K, Wampler, M, VanHose, L, Galanter, M. "Screening for Chemotherapy Adverse Late effects." Topics in Geriatric Rehabilitation, July-September 2011, Volume 27, Number 3, 204-213.






Rehabilitation Medicine

Enhance ability to achieve physical therapy goals

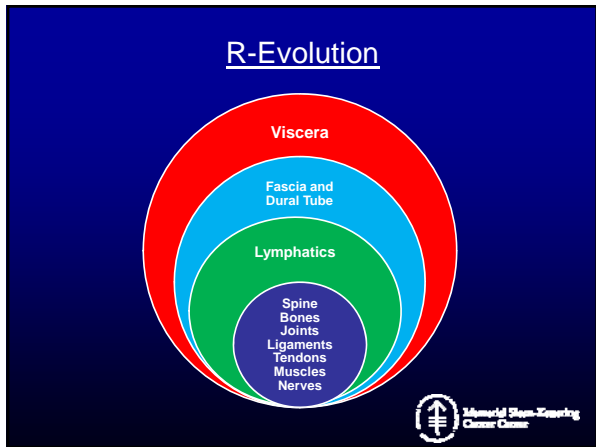
- **Diagnosis (imaging, electrodiagnostics, exam)**
 - Radiation fibrosis
 - Neuropathic pain
 - CIPN
 - Dropped head syndrome
 - Myelo-radiculo-plexo-neuro-myopathy
- **Pain Management**
 - Meds, injections, orthoses

Shubert, MD. Radiation fibrosis syndrome: neuromuscular and musculoskeletal complications in cancer survivors. PMR 2013;13(11):1041-49.




Oncology Rehabilitation specializes in improving functional impairments as a result of acute and late effects of cancer and cancer treatments; Radiation, Chemotherapy, & Surgery






*I can't hold my head up!
Neck pain
Dx: Dropped Head Syndrome*

*Low back pain
I can't walk
I get tired easily
It hurts my shoulder when I reach*





Examination



- Posture
- Spinal mobility
- Functional strength
- Fascial restrictions
- Lymphatic restrictions
- Functional sensation
- Endurance
- Quality of Life measures
- Rib cage expansion



Examination: Posture Grid




Examination: Pelvic Angle



Examination

- Fascial Restrictions
- Lymphatic Restrictions




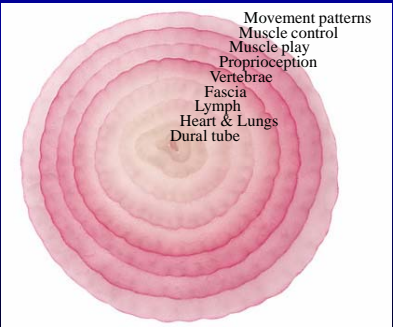
Upledger JE, Webster J.D. Craniosacral Therapy. Seattle, WA: Eastland Press; 1983
Chilly, S. Silver Wings, Scottsdale, AZ; 2004

Examination




Rosel M, Mirzaii M, Gargoy P, Valliant J, Manuel J. Changes in Cervicoccephalic Kinesthesia after a proprioceptive rehabilitation program in patients with neck pain: A randomized controlled study. Arch Phys Med Rehabilitation August 1998; Vol 79:886-899

Impairments



Functional Limitations

- Decreased ability to perform activities of daily living and work related tasks.
- Decreased ability to ambulate community distances.
- Abnormal static and dynamic postures result in inefficient movement patterns.



Goals

Maximize potential and educate patient on how to be an independent manager of symptoms.

1. Posture
2. Proprioception
3. Manual restrictions
4. Transfers
5. Ambulation



Interventions



Scar Mobilization
Release abdominal adhesions for improved lumbopelvic mobility, proprioception & core activation.




© 2013

Self-Scar Mobilization



© 2013


Self Joint Mobilization
Improve thoracic extension to improve chest wall expansion, and provide stable base for neck.



© 2013

Mediastinal Release and Dural Tube Stretching

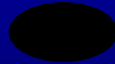
Improve chest wall expansion while increasing spinal length



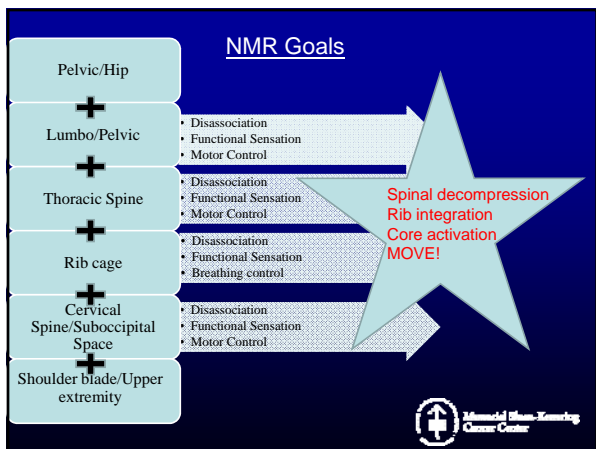
Memorial Sloan-Kettering Cancer Center

Suboccipital Traction

Improve upper cervical mobility to reduce mid-cervical anterior translation.



Memorial Sloan-Kettering Cancer Center



Pelvic Kinesthetics → Sit to Stand



MSKCC photo



Cervicocephalic Kinesthesia




MSKCC photo

MSKCC photo

Rovell M, Moryse M, Gearty P, Valliani J, Mansel JL. Changes in Cervicocephalic Kinesthesia after a proprioceptive rehabilitation program in patients with Neck Pain: A randomized controlled Study. Arch Phys Med Rehabil. August 2004; 85: 2520-2529




Breathing



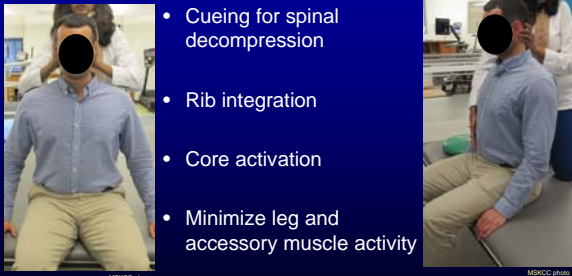
© 2007

- Maintaining spinal alignment, assistance to reduce accessory muscle use
- Reduce work load on neck and promotes rib expansion




Core Stabilization

- Cueing for spinal decompression
- Rib integration
- Core activation
- Minimize leg and accessory muscle activity




MSKCC photo MSKCC photo



Dynamic Stabilization

MSKCC photo MSKCC photo



- Positioning
- Ergonomics
- Supportive bra
- Taping
- Cervical collar
 - Picture of Headmaster
- Occupational Therapy
 - Adaptations
 - Cognition
 - Bracing
 - UE dysfunction
- Lymphedema Therapy

MSKCC photo MSKCC photo



Shubertfeld MD. Radiation fibrosis syndrome: neuromuscular and musculoskeletal complications in cancer survivors. PM R 2013;1(12):1047-54.


Self-Management

- HEP
 - Manual
 - Neuromuscular Re-ed
- Community resources
 - Body work
 - Pilates
 - Yoga
- PT follow up as needed



Barriers to Optimal Outcome

- Baroreceptor Instability
- Chronic condition
- Comorbidities
- Chest wall surgeries
- Fatigue
- COMPLIANCE



Case Studies: 'Stan' & 'Carmen'

