Physiotherapy in Palliative Care

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Outline

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Focus

- Physiotherapy in palliative care is focused on providing maximum comfort for the patient while maintaining the highest level of physical function in the face of disease progression

Editorial – Do Physiotherapists Have a Role in Palliative Care? (2001)

- "World Health Organization principles of palliative care (WHO, 1990):
  - Affirm life and regard dying as a normal process
  - Neither hasten nor postpone death
  - Provide relief from pain and other distressing symptoms
  - Integrate the psychological and spiritual aspects of patient care
  - Offer a support system to help patients live as actively as possible until death
  - Offer a support system to help family members cope during the patient's illness and their bereavement"[1 p.5]

Study – OT and PT in Hospice – The Facilitation of Meaning, QOL and Well-being (2004)

- "Although people lie dying, they are still living – living with the hope for improvements of life despite acceptance that death is inevitable" [2p.129]
- Key Points:
  - "Blending of geriatrics and palliative care approach is ideal" [2 p.121] – ie: focus not only on dying process, but also on other physical problems associated with age (joint pain, hearing / vision loss, fatigue)
  - "Rehab in palliative care is a paradox" [2 p.122] – need to keep in mind when developing goals

Study – OT and PT in Hospice – The Facilitation of Meaning, QOL and Well-being (2004)

- Key Points (continued):
  - "smaller number of home exercises improves compliance and performance" [2 p.122]
  - "therapist recognition and affirmation of extreme effort put forth by patient….great impact on their sense of worth" [2 p.125]
  - "recognize and discuss changes" [2 p.125] related to decline in function
  - Holistic care by therapist is important

Study - The Utilization of Physical Therapy in a Palliative Care Unit (2003)

- Key Points
  - Physiotherapy program benefited 56% of patients assessed and who went through a physio treatment program of 2 weeks
  - Patients with dementia diagnoses showed more functional improvements

Receiving a Referral

- On Palliative Care physiotherapy works on a referral basis, either from Doctor or Nursing.
- Review chart and shift report
- Liase with team (Nursing, MD, HCA)

Initial Assessment

- Determine patient's current physical strength and functioning
- Determine patient and/or caregiver's goals with physiotherapy treatment
- May go in with OT for initial visit if we both have received a referral
- Chart documentation on initial assessment

Physiotherapy Treatments

Ambulation

- Walking is the most functional exercise
- Will assess need for mobility aid (2 or 4 wheeled walker or cane)
- Many benefits:
  - Reduces stiffness / relaxes tight muscles
  - Upright / weight-bearing posture
  - Aides digestion and constipation
  - “change of scenery”
  - Patient has feeling of purpose, and feel they can do something for themselves

Bed Exercises

- Used if patient can not ambulate, or used for additional exercises if they can ambulate
- Includes Passive ROM, Active ROM and bed exercises.
- General bed exercises (see sample) or specific bed exercises
- Handout provided to patient
- Exercises also shown to family / caregiver so they can help

Bed Exercises

- "Goals of PROM / AROM:
  - Minimize muscle wasting
  - Minimize contractures
  - Maintain joint and connective tissue mobility
  - Decrease restlessness
  - Assist circulation and vascular dynamics
  - Help maintain patient awareness of movement
  - Can give caregivers feeling of purpose if they can help with the exercises
  - Develop coordination and motor skills for functional activities (AROM)" [5 p.34-38]

Passive ROM / Stretching

- This may be included in bed exercises
- If patient has contractures / risk of developing contractures or muscle tension
- May also be done to relieve discomfort caused by lack of movement
- PROM is generally done to every major joint in the upper and lower extremity
- Stretching will be done to more specific tight musculature
- Involve family / caregiver
- *WILL NOT*: prevent muscle atrophy, increase strength or endurance, or assist in circulation to the extent that active and voluntary muscle contraction does.

Progression from Bed Exercises

- Practicing lie to sit transfer is the next step up from doing bed exercises
- Patient rolls onto side, lets legs go off edge of bed, then pushes up to sitting
- Once in sitting can “dangle” for as long as tolerated
- Trunk stabilization, leg and arm exercises may be preformed in this position

Transfers

- Transfer assessments are done often on the palliative care unit
- Will work with patient to improve transfer as best as we can
- Nursing does initial assessment and will contact physio if there are complications or difficulty with the transfer

Transfers

- Transfers range from:

  Manual
  - Independent (I)
  - Stand-by Assist (SBA)
  - 1 person assist (1PA)
  - 2 person assist (2PA)

  Mechanical
  - Sit-to-stand mechanical lift (SARAlift)
  - Total Mechanical lift (Hoyer / Opera)
  - Bedrest

SARA lift 3000

- 2 caregivers need to be present to operate the lift
- Patient must be able to put weight through both legs, hold on with one arm, and able to follow simple directions.

Opera Lift

- Comparable to Hoyer Lift
- Must have 2 people present to operate lift

Respiratory Physiotherapy

- If breathing or lung issues, respiratory techniques may be used
- Breathing Education:
  - Relaxation techniques
  - Pursed Lip Breathing
  - Postural Education
  - Stretches / Breathing Exercises
  - Pacing Techniques
  - Effective coughing techniques / Huffing

Respiratory Physiotherapy

- Postural Drainage and Pummeling
  - Both are done with extreme caution and only if specifically requested by MD
  - May help patients who are having trouble coughing up secretions
  - Caution especially with cancer patients who may have possible rib metastases
  - Encourage fluid intake and huffing throughout

Respiratory Physiotherapy

- Physiotherapists are trained in using pulse oximetry
- Will monitor oxygen saturations throughout any breathing techniques or mobilization
- Will also monitor breathing patterns and levels of distress
- RPE (rating of perceived exertion) 1-10 scale

MODALITIES

- Transcutaneous Electrical Stimulation (TENS)
- Heat (Hot pack, Parrafin Wax bath)
- Cold packs

TENS

- Transcutaneous Electrical Nerve Stimulation
- Applications: muscle strengthening, pain relief, wound healing
- Pain control is the most common application of TENS especially in palliative care
- Depolarizes nerves: Action Potential

TENS for Pain Control

- Gait Control Theory
- TENS interferes with pain signals at the spinal cord level
- **PAIN** (noxious stimulus)
  - A-delta Nerves
  - Unmyelinated C Nerves
- **TENS** (non-nociceptive stimulus)
  - A-beta nerves
  - When stimulated can inhibit transmission of noxious stimuli

Methods of TENS

- Conventional TENS (high rate)
- Acupuncture-like TENS
- Burst mode

Conventional TENS

- A-beta nerves can be stimulated by Conventional TENS
- 100-150 pps
- Only effect is while machine is on, so can be used 24 hours a day, or when pain is most severe
- May have lasting effects by interrupting the “pain-spasm cycle”

Conventional TENS

- Modulation – to prevent adaptation
- May need intensity turned up throughout treatment

Acupuncture-like TENS

- Electrical stimulation may stimulate the production and release of endorphins / enkephalins
- Studies have shown that endorphin / enkephalin levels are raised after application of TENS
- Most effective at frequencies <10 pps
- Acupuncture method of TENS can cause this release

Acupuncture-like TENS

- Method may feel more sharp / uncomfortable initially
- Can produce a forceful muscle contraction
- Effects can last 4-5 hours after a 20-30 minute session
- Half-life of endogenous opiates released is approx. 4.5 hours
- Treatment >30 minutes may produce DOMS

Burst TENS

- Stimulation is delivered in “bursts” or “packages”
- Similar to low rate TENS (Acupuncture-like)
- Better tolerated than Acupuncture-like TENS

Contraindications to TENS

- Cardiac pacemakers or arrythmias
- Placement over carotid sinus
- Over areas of venous or arterial thrombosis or thrombophlebitis
- During pregnancy – over or around the abdomen or low back

Precautions with TENS

- Cardiac disease
- Impaired mentation
- Impaired or decreased sensation
- Malignant tumors
- On area of skin irritation or open wounds

OTHER Interventions

- Slings / braces
- Acute Ortho, eg: Hip replacements
- Measure and order TEDS
- Positioning issues
- Exercise equipment:
  - Restorator
  - Weights
  - Reciprocal pulleys

Discharge Planning

- Assess need for mobility aid (walker / cane) and provide purchase / rental information
- Discuss lay-out of home
- Stairs? Rail? Will practice before they go home
- OT is more involved in discharge planning (home equipment)

Occupational Therapy Role

- Wheelchairs (custom / speciality / adaptations)
- Splinting / Bracing
- Positioning
- Adaptive Tools (cutlery / comb, etc.)
- Cognitive Assessments (Cognistat)
- Home assessments / adaptations
- Discharge planning and equipment recommendations (ie: tub bench, raised toilet seat)
- Assessments in ILU (independent living unit)

Challenges in Palliative Care

- Caregiver / Family expectations
- ? Giving false hope
- 0.5 position for PT, 0.3 position for OT
- Fluctuation in status
- Medication side-effects
- Visitors
- MD and other professions visiting
- No rehab attendant

Conclusion

- May not see physical gains like you would in any other area of physio
- Providing motivation / comfort to patient's can be just as, or more, rewarding

- Questions??

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