Activities and effects of qualification system of elastic compression stocking conductor of Japanese Society of Phlebology

Japanese approach

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Japanese approach for compliance of compression therapy

- Not much of medical staffs know about stocking or bandage.
  - No time for M.D., outpatient nurses and ward nurses
  - Who educate patients about compression?
  - Who listen to patients word?

- By increasing the number of medical professionals with knowledge of compression therapy, we try to increase patients´ compliance.

Elastic stocking conductor
Establishment of qualification system of elastic compression stocking conductor of JSP

- **Japanese Society of Phlebology (JSP)** established qualification system of **elastic compression stocking (ECS) conductor** in 2002 by professor Masafumi Hirai.

- **to promote proper usage** of ECS and elastic bandage
  - Including enhancement of compliance

- **to prevent complication** of ECS and elastic bandage

- for treatment and prevention of venous disease, and also treatment of lymphatic disease.
Japanese guideline for VTE prophylaxis was published in 2004.

• Based on ACCP guideline due to scare Japanese evidence
• Multiple society consensus including JSP.
Japanese Medical Insurance Reimbursement of ECS and elastic bandage in 2004

- Reimbursement of management fee for prevention of pulmonary embolism prophylaxis was started in 2004
  - 305 points = approximately 30 Euro
  - Apply Only for high risk in-hospital patients
  - Should be managed under the guideline
  - Only for the patients who were applied ECS, elastic bandage or Intermittent pneumatic compression device (IPC)

- Management of secondary lymphedema in 2008
  - Up to approximately 300 Euro per half year
Perioperative pulmonary thromboembolism in Japan – Perioperative pulmonary thromboembolism research by the Japanese society of anesthesiologists (JSA-PTE research)

Incidence of Perioperative PE is 0.005%

Mechanical prophylaxis approval

Fondaparinux
Orthopedics June 2007
Abdominal May 2008

Enoxaparin
Orthopedics Jan. 2008
Abdominal Feb. 2009

Edoxaban
Orthopedics April 2011
Sharp Increase of ECS and IPC usage after reimbursement VTE prophylaxis in 2004

Sharp decrease of PE is due to awareness of VTE prophylaxis and mechanical methods

These data is based on post operative PE patients, not all surgical patients.

ECS conductor seminar

- Half day course with 100-300 attendees
- 8 seminar per year
- ECS conductor qualification is issued after 30 patients clinical experiences.
- Independent financials
  - Class fee: approx. 50-80 Euro per attendee
  - Exhibition fee from stocking company: 300-500 Euro per company
ESC conductor seminar: Lectures

- Lectures
  - Anatomy, physiology & disease
  - Prevention of Deep vein thrombosis and PE
  - Lymphedema
  - Theory and practical usage of ECS and bandage

- Official Text
図4-6 各種弾性ストッキング

ハイソックス
ストッキング
ベルト付き
片足ストッキング
パンスト
片足用
パンスト
図4-4 立位、運動時の圧迫圧の変化

軽度伸縮性ストッキングが立ったときの圧迫圧の上昇が大きく、運動時の振幅も大きい。
ストッキングによるかぶれ、摩擦による皮膚損傷

トップバンドの位置にスパッツなどを着用してもらうと防止できる
弾性ストッキングによる医療機器関
連圧迫創
後に閉塞性動脈硬化症の合併症が判明、下肢切断となった。

日本静脈学会
弾性ストッキングコンダクター養成委員会
Hands-on seminar of ECS & bandage

Hands-on with video viewing

How to apply elastic bandage with subbandage pressure measurement
Hands-on seminar Videos
How to wear ECS with folding foot portion
Currently, **total number of ECS conductors exceed 2384** in 2017 and about 250 ECS conductors are qualified every year.
Case of Increased compliance of compression therapy by meticulous consultation by ECS conductor

- **80’s y/o Female**
- **Venous stasis ulcer** due to immobilization and **knee/hip arthropathy**.
- Difficult to reach bend her legs.
- Leg elevation was instructed.
- Compression therapy with **pressure guide cotton bandage (30 mmHg)** was started.

Elascot tension guide: Alcare
Worsen Venous Stasis ulcer after 3 months

- She started to complain of uncomfortableness and itching
- She finally rejected compression therapy

Compression bandage was changed to pressure guide low stretch bandage (45 mmHg) because of no heeling of VLU.
ECS conductor consultation

• **ECS conductor (outpatient nurse)** consulted her meticulously for long time.

• She found the reason of poor compliance of compression therapy and poor hygiene.

• She was **living alone and depressed**.

• A **visiting nurse** was introduced and **her son** living abroad was informed about his mother’s condition.

• Compression therapy was **restarted with pressure guided cotton bandage (30 mmHg)** and the pressure was increased up to 45mmHg with increasing overlap.
Venous stasis ulcer was Cured after 5 months

Introduction of visiting nurses and home helpers to help compression therapy. Finally her son came back from abroad and her depression disappeared.
Conclusions
Activity of ESC conductors for better compliance

• ECS conductors are currently working
  • in the outpatient clinic for treatment of venous disease and lymphedema
  • at inpatients ward for prevention VTE.

• ECS conductors with good knowledge of ECS, bandages and diseases help to increase the compliance regarding compression therapy by meticulous consultation.
Japanese Society of Phlebology will be held on June 14-15, 2018 in Yokosuka Japan