New Sling Support for Scrotal Edema

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This article aims at describing to our readers a new sling support for scrotal edema. This gadget is modified from a model recently designed by an American occupational therapist (Benjamin 1999)1. As far as we are aware, it is not a usual practice to use sling support for scrotal edema. We would like to share with you our experience in prescribing this gadget.

Scrotal edema can become very uncomfortable and cumbersome to such a degree that may affect the ambulation and functional performance of patients. Generally, scrotal edema is treated by medication such as diuretics and elevation of the scrotum with towels while the patient is put in supine position (Blackley 1994; Gwynn & Williams, 1985)2,3. However, the drawbacks are apparent. First, the prolonged bed-rest can result in frailty and confinement. Secondly, the convex supporting surface of the towel often makes patients feel very uncomfortable. Thirdly, it will necessitate a lot of manual work for nursing staff to readjust the position of the towel roll as it is difficult to secure the position of scrotum with the towel.

Some therapies may prescribe to patients with scrotal edema standard athletic scrotal supporter which is worn around the waist. However, the athletic scrotal supporter cannot provide adequate support for patients with large and heavy scrotum (e.g., a scrotal diameter of 6 to 7 cm). Further, the contact surface of the waist-belted sling is small and therefore the pressure on the waist can sometimes be rather irritating, especially when there are wounds around the waist.

What are the criteria of a good design of scrotal support? These criteria are set out as follows (Sachse & Teague 1990)4,5:

- comfortable
- conforms to contours of the scrotum
- provides consistent and reliable support
- minimal application time
- easy to apply and remove
- easy to clean
- allows ambulation
- minimal involvement of hospital staff and can be used by patients at home
- can be adapted for use with ice packs and other local therapeutic measures
- custom fitting allows for variations in the amount of edema and anatomical differences

Sling Support - New Design

This scrotal sling is made of 2 different types of elastic fabrics (cloth of prosthetic sock and lycra). The design is simple to be fabricated by fitting patient with a supportive pouch which creates an absorbent barrier between the edematous scrotum and the upper thigh. The pouch will be attached to a pair of shoulder straps of cloth webbing and hook-and-loop fasteners. The shoulder straps are easily adjustable so that the pressure on the patient's shoulder and the traction of the skin can be minimized. The new design of sling support can be seen from the following pictures:

- Posterior View
- Anterior View
- Lateral View

It is our experience that edema tends to resolve effectively with the combination of this new design of scrotal support and ambulation. Patients' feedback is generally good. They can apply the device easily by themselves at home. Unnecessary embarrassment can be avoided. The sling increases patient's ability to ambulate and to perform other functional activities.

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Scrotal Support
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Introduction
Scrotal support is one of the most commonly prescribed treatments for surgical conditions involving the scrotum. The aim of this treatment is to apply mild local pressure on the scrotum in order to prevent hematoma formation and reduce scrotal swelling. Apart from the benefit of fixing the scrotum in place, use of scrotal support can reduce pain generated by the swelling of scrotum during mobilization.

Conditions indicated for the application of scrotal support include: varicocele, hydrocele, epididymitis, orchitis, inguinal hernia, post vasectomy, and chemical or thermal trauma involving scrotum.

The treatment is safe; nursing care during the implementation of scrotal support includes observation of the intensity of scrotal pain and scrotal oedema. Usually pain and swelling will subside after the application of the support. If pain and swelling increase, thorough examination of the patient by surgeon is necessary.

Choice of scrotal support
The success of the treatment depends on the well fitting of the support. Commercial available scrotal support for sport use usually can serve that purpose. However due to the difference in body size and scrotal size of patients, various sizes of scrotal support must be available for fitting. In hospital setting, the stocking of various sizes of scrotal support is only possible in major urology center in the consideration of cost.

Temporary scrotal support configured by paraffin gauze, gauze, and Elastoplast. They are the materials very commonly used for supporting the scrotum. Advantage of applying temporary scrotal support includes the ease of availability of materials, well fitting and ease of application during surgical procedure.

Application of temporary scrotal support
The principles of application of scrotal support are as follows:
• Well fitting and secure well at position
• Avoid excessive traction or pressure on skin
• Hygiene consideration

During the application of the support, it must be fitted well to hold the scrotum and apply mild pressure on the scrotum. For the fixation of the scrotum, the support must be firmly secured by Elastoplast on the surrounding normal skin. However during the application of the Elastoplast, the protection of the skin is very important in order to avoid excessive pressure or traction which lead to skin breakdown. Finally the patient's daily hygiene need such as passing urine and bowel opening must be taken into consideration during the application of the support. Education on how to maintain daily hygiene needs must be performed after the application of temporary scrotal support.

Application procedure
1. The patient must be thoroughly examined by the surgeon before the application of the scrotal support.
2. Inspect the scrotum and perineum area for any skin lesion and record the conditions.
3. Shave pubic hair.
4. Apply paraffin gauze and dry cotton gauze to cover the whole scrotum.
5. Secure the gauze by Elastoplast. First secure the bottom part of the scrotum and the end of tape secure on the pubic area. Then secure the bottom part of the dressing with Elastoplast to the both sides of inner thigh. If the patient does not have any buttlock area, additional security of the bottom part of the scrotum by applying Elastoplast and secure to both buttocks.
6. Finally secure the rest of the dressing by applying Elastoplast with the application of mild pressure on the scrotum.
7. Frequent inspection of the scrotal support at least once every shift is necessary to observe for any displacement of the support or detachment of the Elastoplast from the skin. The use of support should be stopped if scrotal swelling and pain subsides.

Bibliography
COUNCIL MEMBERS

Name: Professor Yeung, Chung Kwong
(Council Member)

Post: Professor and Chief of Paediatric Surgery, Department of Surgery, The Chinese University of Hong Kong

Professor Yeung is currently the Professor and Chief of Paediatric Surgery, Department of Surgery, the Chinese University of Hong Kong. He has established Hong Kong's first Combined Spina Bifida Clinic as well as the Children Continence Care Center in Prince of Wales Hospital. Professor Yeung has special interests in paediatric minimally invasive surgery and paediatric urology, especially in the field of children continence care. He has been a pioneer in the development of many innovative laparoscopic procedures in infants and young children. He is currently the Vice President of the International Paediatric Endosurgery Society and member of the Editorial Board of the Paediatric Endosurgery & Innovative Techniques Journal. He is President-elect of the Asian-Pacific Association of Paediatric Urologists as well as a committee member of the International Children's Continence Society. He is the chairman of the Board of Paediatric Surgery and Honorary Secretary of the College of Surgeons of Hong Kong. He is also Editor of the official journal of the College. Professor Yeung has published very widely and is member of over 40 learned international societies.

Name: Dr. Yip, Shing Kai
(Council Member)

Post: Associate Professor of Obstetrics and Gynaecology of The Chinese University of Hong Kong

Professor Dr. S K Yip is an Associate Professor of Obstetrics and Gynaecology at The Chinese University of Hong Kong. He was trained at The Chinese University of Hong Kong and received the degree of MSc in 1987. Thereafter he developed a special interest in urogynaecology. Following his MRCOG qualification in 1993, he continued to develop his interest in all aspects of urogynaecology, including pelvic floor reconstructive surgery, psychosocial research in urinary incontinence, and the management of genitourinary prolapse. Professor Yip now heads a busy and productive tertiary referral urogynaecology unit at Prince of Wales Hospital. He has a heavy clinical workload dealing with complex urogynaecological problems in a regional tertiary referral unit teaching medical students, training junior doctors and undertaking clinical research. Apart from being a Council member of the Hong Kong Continence Society, he is also the Secretary of the Urogynaecology Board of the Hong Kong College of Obstetricians and Gynaecologists.

Name: Dr. Cheon, Willy Cecilia
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Post: Senior Medical Officer
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Dr. Cheon Willy Cecilia is the Head of Urogynaecology Team of the Department of Obstetrics and Gynaecology of Queen Elizabeth Hospital. She has special interest in urogynaecology and gynaecological endoscopic surgery. Apart from her service as a Council member of the Hong Kong Continence Society, she holds other positions such as Chairman of the Urogynaecology Board of the Hong Kong College of Obstetrics and Gynaecology and Council member of the Asian Pacific Continence Advisory Board. She has been a Council member of the Hong Kong Continence Society for more than 5 years. She is deeply impressed by the tremendous work that has been done by the Society in the promotion of continence care. She will continue to try her best to support the Society.

Name: Lau, Terrence
(Council Member)

Post: Physiotherapist
Jockey Club Kowloon Rehabilitation Centre of Kowloon Hospital

Mr. Terrence Lau is a physiotherapist of Jockey Club Kowloon Rehabilitation Centre of Kowloon Hospital. He is currently involved in delivering outpatient services, including occupational rehabilitation program to patients of various conditions. With over 15 years of professional experience, Mr. Lau has vast experience in delivering continence care to neurological and geriatric patients. Mr. Lau has been instrumental in facilitating the formation of the Society and has taken up the post of Honorary Treasurer since 1996 until 2017.
Miss Lee has been working as a full time Stoma Care Nurse in Queen Mary Hospital since 1990 and has become the Nurse Specialist (Stoma Care) of Queen Mary Hospital since 1996. She is dedicated to promoting stoma care and continence care. Her job includes delivering talks and organizing related courses. She is one of the Editorial Board members of this Newsletter. She enjoys cooking very much although she is a new learner.

Miss Yuen has been working in geriatric settings since 1993. Her current duty at Ruttonjee and Tang Shiu Kin Hospitals includes geriatric services to both in-patients and day-patients. She is dedicated to providing services to the elderly. She has been actively participating in the activities organized by the Hong Kong Continence Society in order to promote continence care in Hong Kong. She is the Chief Editor of this Newsletter. She has special interest in the prescription of aids and equipment to help patients manage their incontinence problems.

Dr. Pei is a geriatrician. He previously worked at Queen Mary Hospital and TWHG's Fung Yu King Hospital. He will start his own private practice at Healthgate Medical Centre in Sheung Wan. He continues to have a strong interest in continence care and plans to set up his own continence and urodynamic services at his medical center in addition to other elderly services.

Dr. Tam has specialized experience in the fields of Rehabilitation Medicine and Geriatric Medicine. He set up the Continence Promotion Team and Urodynamic Clinic in Wong Tai Sin Hospital in 1994. Most patients are disabled and / or elderly whose incontinence problems have long been concealed by diapers or Foley catheters. The team aims at curing incontinence if possible and if not managing incontinence in the most optimal way so as to minimize the disability and handicap resulting from incontinence. He is also interested in setting up an Internet website for continence care.
Hong Kong Continence Society Ltd.
Annual Scientific Meeting and
Annual General Meeting, 15 September 2001

Ms. Lee Wai Kuen (Nurse Specialist of QMH) and Ms. Anna Tang (Nurse Specialist of KWH) also presented in the meeting. Their topics are “Colonic Irrigation” and “Nursing Management of Fecal Incontinence.”

Dr. David Lam (Surgeon of UCH) presented the topic on “Fecal Incontinence” in the meeting. Our President and Vice-president presented a souvenir to him.

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Certificate Course on Continence Care
for Registered Nurses 2001

Date: 5 November 2001 - 17 November 2001
Venue: United Christian Hospital
Organizer: Jointly organized by United Christian Hospital of Hong Kong and Royal Prince Alfred Hospital of Australia.

Pelvic Modulation Society
First Annual Course

Date: 12 January 2002 - 13 January 2002
Venue: Ponte Vedra Inn And Club
Ponte Vedra Beach, Florida
Course Directors:
Paul D.M. Pettit, M.D.
Steven Siegal, M.D.
Course Description:
Lectures, Videos, Case presentations and Panel discussion on neuromodulation of pelvic floor disorders.

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