

# **Staudt-Therapy-Sleeves**

Excerpt from doctor's reports

## **POLYPRAGMASIA in RHEUMATOLOGY**

**„New thinking“ in medicine leads to integral inclusion of different multi disciplinary therapy methods. This integral medical point of view shall also be taken into account in the framework of modernizing the magazine.**

*We are thus presenting as today's contribution an experience report by Univ.-Doz. Dr. K. Chlud on adjuvant treatment of arthropathies by means of therapy-sleeves.*

**In summer of 1991 we initially had the chance to apply Staudt-therapy-sleeves as supplement to ongoing medical measures on inpatients and partially on outpatients displaying different rheumatic joint conditions.**

That way, we have gathered experience with 80 patients suffering from acute to chronic conditions of the supportive and motion system, particularly the major load bearing joint of the lower extremities but also the wrist and knuckles including shoulder joints and partially the axle skeleton.

It was expected to gain positive influence by the Staudt-therapy-sleeves on articular and peri-articular structures. Being a textile compound system – PNEUMOLASTIC – with the following effects:

By means of retaining the reflecting body heat, it has been possible to create a warm and dry micro climate with dry-mild warming without exceeding the core temperature of 37° C and at the same time preventing moisture retention by means of diffusion ways along the depression grooves: Air and moisture mixes are absorbed by atmospheric fresh air.

That way, permanent moisture is prevented and the skin temperature under the sleeve is increased by 1 to 4 degrees Celsius.

It is also expected to obtain a slight massage effect along with muscle relaxation and blood circulation support and furthermore a shock absorbing effect by means of absorbing vibrations.

A friction effect with increased blood circulation, warming and consecutive muscle relaxation is of significance as well. Friction on the skin creates static electricity with negative charging.

Due to these properties we have been able to apply Staudt-therapy-sleeves in numerous indication cases. They were usually patients of the higher age group (60 to 80 years) who particularly appreciate these sleeves.

Moreover, it has been proved that it is advantageous to apply two sided symmetrical sleeves even in cases of single sided manifestation in order to prevent the influence of the collateral side on the single sided process through cold stimulus, pressure etc. for sensitive patients of the higher age group. For younger patients it should be probably sufficient to apply a single side sleeve for soothing single sided processes.

### **Indications**

Arthrosis conditions of major load bearing joints with subjectively manifest gradation and different painful peri-arthropathies around the joint generally require good influence on tendomyoses, insertion endopathies, ligamentoses and other pain sources associated with the joint.

We have thus been able to obtain significant savings of antirheumatics and analgetics in advanced stage cases of decompensated gonarthrosis, by way of reducing starting pain conditions and painful exercise after 2 to 7 days of sleeve application already. It has been possible to reduce or even partially discontinue physical-medical therapy measures.

For applications in cases of irritated arthrosis of the knee joint, it was not expected to see clinical cure until after tapping the hematoma. A nearly analogous behavior was also perceivable in cases of arthritic

processes of the upper ankle joints. Peri-arthropathies of the hip in connection with coxarthrosis and pain sources in the area of trochanter major, M. gluteus maximus base and also in the area of the spina iliaca dorsalis have proved being a good indication as well: A reduction and even up to discontinuation of analgetics (antirheumatics) has been possible after about 3 to 6 days of Staudt-sleeves application in most cases of clinically minor and mediate gradation.

A similar behavior was perceived in cases of minor intense peri arthropathies of the elbow in subacute to chronic gradation with reduction of pain in resting state and motion.

The application of Staudt-therapy-sleeves in cases of peri.arthropathia humeroscapularis (tendinotica-simplex, - frozen shoulder) is perceived as very comfortable by patients, especially, in acute gradation in connection with joint bruises. It was possible to reduce local infiltrations and systemic medication.

Patients with acute and subacute polyarticular seizures of chronic polyarthrosis perceive the finger and wrist sleeves as a relief due to the reduction of morning stiffness of the knuckles and hyperhidrosis of the inner hand surface. They also feel protected against external pressure effects with local pain triggering to a certain extent especially at night. Other chronic joint inflammation of different genesis – like psoriasis-osteoarthropathies, para-neoplastic arthrosis and reactive arthritides – react positively to the application of therapy-sleeves as well, often after 2 to 3 days already.

This applies in particular to pseudo arthritis of the knee joints which is

frequently seen in the higher age group of patients. Also for patients suffering from dry pressure necroses in the gluteal heel area and the outer side of the knee joint and upper arm fractures without operative treatment since uncomfortable sweating below the otherwise applied common fiber dressings does not occur.

Painful gradation of poly-arthritis of the knuckles, Heberden, Bouchard type, and the saddle joints have proven to be good indications as well since the therapy-sleeves reduce exposition to the cold at night and the affected joints are well kept warm. Patients of the higher age group were particularly grateful in situations of osteoporosis seizures of the axle skeleton.

This is characterized by a distinctive sensitivity to neural spine patting in connection with pain triggering in the

often extremely pressure dolent para-vertebral muscular system.

The detensionization of the para-vertebral muscular system obtained after 1 to 3 days of sleeve application leads to pain reduction and analgetical savings. The intermediate and lower cervical syndrome in cases of radiological proof of involution processes of the cervical spine can be positively influenced by application of collars.

It was also possible to monitor the reduction of dysesthesia and paraesthesia of the upper extremities in cases of cervical syndromes in connection with climacterial syndrome simply by means of therapy-sleeves application without drug therapy.

The carpal tunnel syndrome of inflammable and degenerative basis in higher age groups is also a very good indication:

Patients are reporting on the reduction of motion and night pain. In 5 out of 8

cases it was possible to avoid an operative surgery.

In summary we can thus conclude that the well adaptive Staudt-therapy-sleeves being differently shaped for all joints have proven to be well suitable in practice as mono therapeutics or as supplement for now 80 patients, mainly inpatients but also for outpatients suffering from the frequently seen rheumatism conditions of the soft body parts (peri-arthropathies), as well as for mono- and oligo articular inflammable and degenerative joint conditions.

Patients feel safe and protected especially at night.

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## Ref: Staudt-Therapy-Sleeves – areas of application

It is known worldwide (in dermatoma science) that pain, respectively other sensations can extend from the affected part to the counter lateral i.e. the opposite side via neural reflection arcs, controlled by the marrow and possibly via cerebral impressions and thus co-damaging a seemingly healthy organ (proven by means of energetic measuring techniques).

It thus appears logical to me (and my therapy experience supports it) that not only the damaged organ but also the counter organ should be treated even though it seems to display no clinical picture and thus having the chance to obtain a faster energetic balance and curing resp. repairing the obviously damaged organ (e.g. knee).

Sincerely  
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P.S. 1. Nighttime sleeve for the back: comforting – slight soothing

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## TREATMENT REPORT

### STAUDT-THERAPY-SLEEVES

164 patients have been treated with therapy-sleeves made of patented compound material (Staudt-Therapy-Sleeves) in our department during the past 3 months.

143 patients (87.2 %) have been prescribed sleeves as supplement to physiotherapeutic treatment.

The remaining 21 patients (12.8 %) were either therapy resistant cases (5 patients), or patients with chronic clinical pictures (16 patients) like for example chronic poly-arthritis with mild gradation.

Treatment included the following clinical pictures:

1. Knee joint:	Arthrosis, chondropathy, meniscus lesion, lesion of the tractus iliotibiale, lateral ligament lesion	38 patients
2. Shoulder:	Arthrosis, Mb. Bechterew, osteoporosis	17 patients
3. Ankle joint:	Polyneuropathy, upper ankle joint instability, condition after ankle fracture, condition after tibia fracture, blood circulation disorder, plantaraponeurosis pain, subluxationstraumata, arthrosis, arthrosis	6 patients
4. Back:	sacroilitis, discopathy, condition after discus extraction, Mb. Bechterew, osteoporosis	24 patients
5. Elbow:	Epicondylopathy, arthrosis	12 patients
6. Neck:	distorsions of the upper spine, tension of the neck muscles, migraine	11 patients
7. Forehead:	chronic sinusitis	7 patients
8. Wrist:	Polyneuropathy, rizarthrosis, carpal tunnel syndrome, arthrosis, blood circulation disorder	19 patients

The effect of the Staudt-therapy-sleeves is mainly obtained by way of storing body warmth meaning a dry warming up as well as by the micro massage effect of the foam filled fins.

The assessment of the therapeutic efficiency was made according to a subjective pain and tolerance score.

86 % of the patients displayed excellent tolerance, 13 % good tolerance and 1 % of the treated persons reported only poor tolerance.

In 19 % of the cases we were able to state complete relief from complaints. 43 % of all patients stated a significantly noticeable pain reduction. In 35 % of the treated cases we were able to obtain a noticeable reduction of complaints. Only 3 % of the affected persons displayed no improvement of the pain situation worth mentioning.

In summary, we consider Staudt-therapy-sleeves a coherent supplement to physical-therapeutic treatment of the motion system due to the experience and results gained during the treatment period.

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## Remarks on: “Experience with Staudt knee sleeves”

Dr.med. Hubert K. Hartl (Managing board member to the Austrian Hemophilia Society)

I was recommended the Staudt knee-sleeve as therapy supplementing measure after a knee operation – totalendo prosthesis post Caput tibiae dext fracture – in connection with existing severe hemophilia A (blood condition).

About three weeks after the operation I started using the bandage regularly during sleep until today and I was able to notice the following:

- the sleeve was very comfortable to wear, it was by no means bothering
- the knee swelling was reduced quickly due to the massage effect and the circumference was reduced permanently
- the sleeve has a significant influence on the wound healing as well; the combination of (homeopathic)

Wound ointments and massage (by the Staudt-sleeve) lead to a quick wound healing and forming of an “unobtrusive”, thin scar.

Dr. med. Hubert K. Hartl  
Manager

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## TREATMENT REPORT ON THE USAGE OF STAUDT ANKLE SLEEVES FOR SYMPTOMATIC THERAPY OF SYMMETRICAL PAINFUL DIABETIC POLYNEUROPATHY OF THE LEGS.

Staudt ankle-sleeves have been applied by participants of the outpatient type II group trainings but also for symptomatic inpatient diabetics type I and II since 1992 in order to soothe the painful symptoms of the diabetic poly-neuropathy and muscular calf cramps often connected with them and especially occurring at night. The test has been carried out especially because of the frequent therapy refractitious situation (non reactivity to physical measures and so called neuropathy infusions (vitamin-

B-preparations). The treatment has been carried out on 159 patients, many of which (about 80 %) had a feeling of significant reduction of symptoms and improvement of night rest owed to wearing the sleeves.

Often, it was possible to reduce the attendant pharmacotherapy and an inpatient admission for an infusion treatment and physical therapy (due to unbearable pain) which used to be customary formerly is now only necessary in individual cases. Many of our patients are now wearing the second or third pair of sleeves already.

Many patients do not tolerate the bandage (inefficiency, heat sensation) or wore them only for a couple of hours.

Worsening of symptoms but also of impending diabetic foot lesions has never been monitored. The effective principle is only speculative as of today's state of knowledge. Certainly the smooth massage effect leads to a relaxation of the tonus increased muscles, a positive stimulation of the irritated sensitive nerves is probable. The micro circulation is mostly still good due to the broadened autonomous neuropathic diverging vessels- a certain redistribution of blood into the skin without deterioration of the deeper blood circulation (no steal phenomenon) is likely to contribute to the therapy success. In the course of a 3 year evaluation of type II training we are currently examining the effects of therapeutic measures for treatment of the diabetic foot (data will be available as of March 1994).

In summary, we can currently state that a therapy with Staudt-therapy-sleeves causes an excellent longer lasting symptom relieving effect (better than infusion therapy and physical therapy) with significant reduction of an indication for inpatient therapy and analgetic pain modulating therapy in cases of painful sensitive diabetic poly neuropathy. There were no side effects or deterioration of diabetic foot conditions.

Based on today's extensive experience, we can highly recommend Staudt-therapy-sleeves for symptomatic therapy in cases of diabetic poly- neuropathy of the legs.

The effect of therapy-sleeves on manifested foot lesions (ulcera, hyper ceratosis) will be subject of further analyses.

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## **CHRONIC LOWER BACK PAIN**

### **Analysis on the effect of therapy sleeves**

**F. Mayrhofer, F. Aglas**

Physical performance ability is significantly restricted by acute or chronic lower back pain. The negative effects in professional and private life lead to a significant loss in quality of life. If a disc disorder being the reason for lower back pain is diagnosed by way of anamnesis, clinical examination and utilization of image producing methods (magnet resonance tomography etc.), then it is possible to apply purposeful treatment of conservative type as well as by means of surgery. If that is not the case, then the reason for lower back pain comes from the system of muscles, joints and ligaments to the spine. In that case it not possible to clearly isolate the pain causing structure due to interdependent influence and interaction within this system despite exact and often very elaborate examination methods. Since long standing pain conditions become harder and harder to treat, it is aimed at soon starting treatments with expected good influence. We recommend pain medication in consideration of individual digestibility and medication with supplementary anti-inflammatory effect ("anti-rheumatics") in cases of present irritation conditions. However, the core therapy should be based on physical therapy measures. The concept, consisting of initial or attending pain therapy, application of local measures to influence muscular tension, blockades of disc joints and improvement of the tissue metabolism and motion therapy leading to building up a well aimed training therapy, brings the best long term success from our experience. The mentioned local measures are particularly diversified and every therapist will apply them according to his/her experience.

However, it also shows that simple therapy applications often display a surprisingly good effect.

Among others, a therapy-sleeve having a patented compound material system with a presumable massage effect due to the material properties (elastic properties of the straps, relation of strap height to strap width and distance) has been introduced to us.

The dynamic change of the imposing pressure caused by diameter amendment of the tube shaped sleeve has been analyzed in a test structure by means of "muscle activity simulator". Very little diameter amendment was needed to display a kneading movement of the compound system's straps. It was determined by way of thermography (warmth measuring by infra red camera), that the model elbow could profit from a blood circulation promoting effect due to this kneading (personal

statement of Univ.-Prof. Dr. Herfried Pessendorfer, University of Graz, Physiologic Institute, work group “system physiology and bio-medicine technology”).

We have chosen a sleeve for the back (see image) of the described material for treatment of patients suffering from chronic lower back pain.

40 patients in total (8 women and 32 men) have been chosen for that purpose during a period of 2 months, who have been treated according to the described concept (motion therapy in water and on dry surface, Balneo therapy, electro therapy, massage and back training and medication therapy if necessary) in the first 8 days of their hospital stay at our rehabilitation center and who displayed no improvement of their complaints after that period (subjective statement on pain intensiveness and judgment of spine flexibility). These 40 patients have been split up randomly into two groups.

In group A, there were no changes in the current treatment - in group B we additionally applied the mentioned back-sleeve during the night. The two groups were comparable with regard to age, weight and size. In order to judge the further course, all patients were tested towards the finger to floor distance (FBA) and the statement on the intensiveness of back pain was documented according to 100 mm analogue range (0 = no pain, 100 = strongest pain ever).

The measuring was repeated after 8 further days. It showed that after these further 8 treatment days both groups displayed a significant improvement of the spine flexibility with regard to the FBA. The subjective statements by the patients on the intensiveness of their back pain were different in both groups.

Only for patients having been treated with the supplementary back-sleeve at night, it was possible to determine a significant improvement of the back pain according to the visual –analogue range. The therapy-sleeve treatment was appreciated as very comfortable by all patients. Moreover, 7 of them reported on a spontaneous significant improvement of the spine stiffness in the morning.

This analysis over a 16 day treatment period has shown that chronic lower back pain can be improved by means of an extensive therapy concept. The different statements in the groups with regard to the intensiveness of pain underline the initially mentioned assumption that often simple and inexpensive therapy applications, like in our case the utilization of the described back sleeve, can make a significant difference for the patients.

When we summarize the recommendable treatments for chronic lower back pain to our estimate, then they consist of pain treatment, motion therapy, supported by passive physical therapies and building up a well aimed training therapy. These measures should be respectively combined in consideration of the condition and clinical picture of the patient in due course including simple and inexpensive treatments like for example the described sleeves which should be considered at early stage.

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