

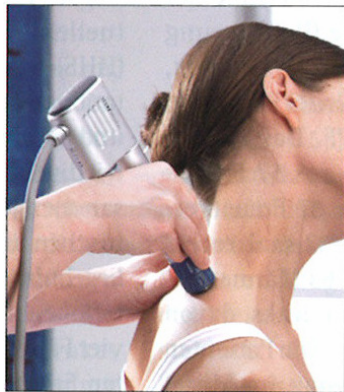
## **Significant pain reduction**

### **Combined shock wave therapy offers a wide range of treatments**

The use of Extracorporeal Shockwave Therapy (ESWT) for treating orthopaedic and trauma-related disorders has developed since the 1990s. The most well-characterised pain syndromes being treated with ESWT include enthesiopathies, plantar fasciitis, tendinosis calcarea of the shoulder, radial and ulnar epicondylitis, greater trochanteric friction syndrome, patellar tip syndrome, achillodynia and pseudoarthrosis. ESWT has also been used successfully with competitive athletes. In our practice we use the DUOLITH® SD1 from STORZ MEDICAL AG, Tägerwilten. It is a unique device specifically designed for combination therapy and is also suitable for use at competitive sporting events.

Treatment of myofascial trigger points with ESWT is becoming increasingly important in everyday practice. 80 percent of all back problems are muscular in origin. Modern life, with its sedentary occupations and lopsided postures in front of computers, is changing the type of orthopaedic problems seen within the population. Patients are becoming younger and younger. The number of patients complaining of headaches, muscle tension, dizziness, paresthesias, etc is striking. Patients with chronic complaints are often treated by a variety of specialists over several years before eventually being diagnosed with a somatisation disorder.

Nowadays myofascial pain syndrome with secondary blockages, muscular contractures and consequent poor posture and joint pain – not infrequently linked with pseudoradicular symptoms – is frequently encountered in orthopaedic practice. According to Travell and Simons' theory, 'muscular trigger points' are the main cause of such symptoms. These are knots or hardened nodes in the affected muscle areas which characteristically cause both local and radiating pain. Particularly rapid and effective results are observed using combined ESWT, which employs high-energy focused and radial shock waves and with which we have been treating patients on a daily basis for the last four years using the DUOLITH® SD1 combined shock wave device.



#### **Treatment procedure**

Patients undergo a thorough orthopaedic examination and, following the exclusion of a radicular origin for pain symptoms, shock wave therapy is performed. An average of six weekly sessions is required. Trigger points are defined by palpation prior to each treatment session. Where symptoms are present in the shoulder and neck area, trigger points are found in the trapezius, levator scapulae, infraspinous, teres major and minor, serratus posterior superior, sternocleidomastoideus, semispinalis and splenius muscles. We also carry out a pressure sensitivity test on each trigger point using an F-Meter (a special diagnostic instrument manufactured by Storz Medical) and record this for treatment quality assurance purposes.

We begin by treating the previously located trigger and pain points with the focused handpiece. We usually use a medium penetration depth and apply around 1000 impulses to each area at an energy of 0.2 to 0.25 mJ/mm<sup>2</sup> and a frequency of 4 Hz. Treatment is then continued using oscillating radial shock waves (D-ACTOR technology from Storz Medical). Around 2500 impulses at an energy intensity of 2.6 bar and impulse frequency of 20-21 Hz are required to loosen the musculature.

Treatment is usually carried out over a six-week period. A significant reduction in pain is observed during this period. As a comparison, such results are seen only rarely among patients treated with physiotherapy only. The treatment of trigger points with combined shock wave therapy is a safe, cause-specific method of treating pain.

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