REPORT ON MASTERPULS MP100 SHOCK WAVE

THE CENTRE TERAPÈUTIC MÈLIES is a physiotherapy and rehabilitation centre managed by MR. DAVID POU NAVARRO.

This private centre is located in the town of Pineda de Mar, near Barcelona, and offers physiotherapy, nursing, podiatry and general medicine.

David Pou Navarro graduated in Physiotherapy and Nursing from the Blanquerna University School of Nursing and Physiotherapy, which is part of Barcelona's Ramón Llull University.

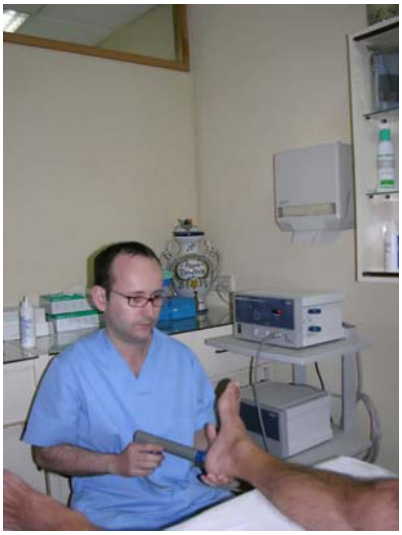
Mr. Pou is currently an Associate Professor at the Blanquerna school, working on the neurology postgraduate scheme.

He is also a Coordinator of the Continuous Education Course at the Blanquerna school and, upon request, gives classes to public hospitals and private organisations, in a variety of areas and technologies applied to physical rehabilitation.

Having acquired a MASTERPULS MP 100 radial shock wave system from the AVANCES EN TECNOLOGÍA Y MEDICINA SA (ATM) company in August 2004, David Pou has been using this technology since then to treat various injuries and has had extremely good results, as illustrated below by the examples of treatment results provided at the Centre:

- Heel spurs
- Tendinitis (epicondylitis)
- Shoulder pain and tendinitis of the upper spine
- Anterior compartment syndrome

We have treated 25 patients, in all, using extracorporeal shock waves at the Centre Terapèutic Mèlies, carrying out an average of around 5 sessions per patient with the **Masterpuls MP100** device.



Heel spurs: (14 patients)

The most common injuries that we treated were heel spurs, where patients suffered from severe **pain had been for a minimum of 6 to 24 months** and in all cases diagnosed by radiology. With a total of 14 patients, an average of 5 sessions (once a week).

With the following treatment pattern at **10 Hz** frequency:

	1st session	**2nd session**
No. of shots	2500	2500
Pressure (bar)	1.5 to 2.5	2.5 to 3

3rd session	**4th session**	**5th session**
3000	3500	3500
3.5	4	4

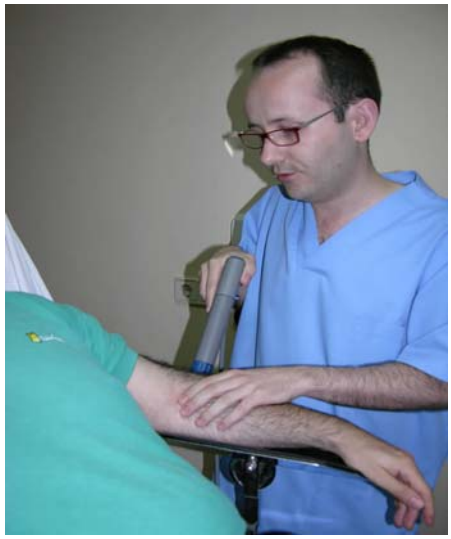
The shocks were given to the area which is painful to the touch and at different angles in order to be able to access the heel spur area from different angles.
Of the 14 patients:

- **10 patients (71.4%)** noted a greater than 50% reduction in pain after the second session, and **more than 90% from the fourth**. After the 5th session, 1 month without any treatment, a new assessment has been done. The pain had disappeared completely and the results had been maintained.

- 1 patient, during the third session, possibly due to the increase in the number of shocks and pressure, found that the improvement that he begun to notice vanished and the pain increased, and he had difficulty walking. In the following two sessions the number of shots and the pressure was reduced again and a slight improvement was experienced, which the patient quantified as being no more than 5% improvement over the pain he had had. No significant improvement.

- 3 patients experienced an improvement of 50% by the end of the treatment, and this was maintained throughout the month before the review. They even remarked that the improvement in pain was a little greater than that which they had experienced initially. The result was not wholly satisfactory for the physiotherapist, but it was for the patients, who state that they can only feel a slight discomfort when walking, but that it is bearable compared to how it had been when they first start with the treatment.

In conclusion, we can say that by using the shock waves we got a very good result when treating heel spurs; as long as we do not apply the technique with excessive pressure and shots, which can cause overload to the heel bone and microtraumas which lead to more pain.



Tendinitis: (5 patients)

2 Treatments were given to a total of 5 patients with tendinitis (1 Achilles and 4 of the elbow)

Achilles tendinitis

A total of 4 sessions were given, following the same pattern in each:

- 5 Hz (2 sessions) and 10 Hz the other two
- 2000 shocks
- 2.5 bar pressure.

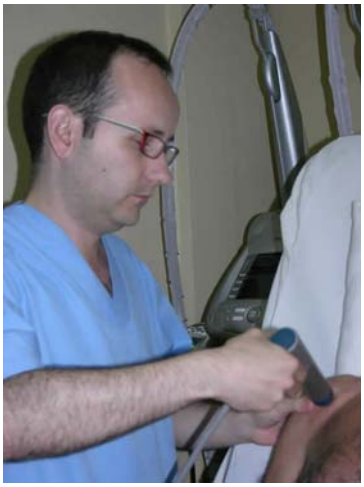
The patients had been receiving treatment for Achilles tendinitis with infiltrations, but when the person tried to recommence their physical activity – jogging – they started to feel discomfort again after 10 minutes.

They were prescribed complete rest from all sport for the month that the treatment was due to last, and they were shown a number of stretching exercises to be done at home.

After treatment, the patients were advised to begin training again gradually.

The patient stated that after the treatment they had no pain at all, and they can run freely.

Comparing the shock wave treatment with electrolysis, the results are the same, though the shock waves are less aggressive given that patients do not tolerate the electrolysis very well.



Epicondylitis:

A total of 4 sessions were given, following the same pattern in each:

- 4 sessions at 10 Hz.
- 3,500 shocks
- 3 bar pressure.

Of the 4 cases of epicondylitis treated, **two had been suffering pain for over two years** and in these we obtained a partial result, as we managed to reduce the pain by 50% after 4 treatment sessions; **the reduction in pain was significant given that it enabled them to carry out normal, everyday activities once more**, although when doing anything that required the use of the epicondyle muscles it was necessary to continue using a support for the condition.

The other two epicondylitis patients were at the initial stage, having suffered for two and four months respectively – both were suffering from epicondyle muscle fasciculations whenever they were involved in any activity.

The shock wave sessions were done at 10 Hz, 3500 shots and 3 bar pressure. Along with the shock wave treatment, we applied laser treatment to reduce the pain and increase the tendons' speed of recovery.

The results were satisfactory in both cases, from the first session onwards, with the pain disappearing.

GymnaUniphy
YOUR PHYSIO COMPANY