

Non-union and shock waves: the option.

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Device and producing company:

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Introduction:

Since 1996 shock waves have been one of the principal treatments for nonunions in our medical unit. It is now a common alternative treatment for non-unions with a new model of prediction of the outcome. With power Doppler we detect the problem and select the proper treatment site. We present the summary of our experience of the last four years.

Methods:

Two different shock wave systems were used. From 1996 to 2006 we used an electro-hydraulic system and since 2006 we have been using an electromagnetic system. First we used x-rays and later ultrasound for targeting. We evaluate the final results of 60 patients with x-rays and ultrasound after one, two, three and six months.

Results:

Mean age of the patients: 43.2 years; mean age of the non-union: 9 months; previous surgery: 97%; consolidation with electro-hydraulic system: 55.4%; consolidation with electromagnetic system: 75%.

Discussion:

We will discuss the different methods of treatment (electromagnetic or electrohydraulic). The main issue is to locate the proper treatment site and the to treat only fractures younger than months of evolution.

Conclusion:

ESWT is an efficient treatment for non-unions. Ultrasound is the best method of focus. The selection of the treatment site must be performed with Doppler and ultrasound.