

## MYELINATED - NERVE BEHAVIOR IN PSORIASIS

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### ABSTRACT

The relationship between the nervous system and psoriasis is still unclear. Certain neuropeptides seem to play significant roles, but less is known about the behavior of myelinated nerve fibers. In a group of 26 psoriasis patients motor function was evaluated using bipolar surface electrodes over the median, ulnar and peroneal nerves. Sensorial function was tested along the median, ulnar and sural nerves. Abnormalities were observed in only two patients; one presented a slight reduction in motor conduction velocity of the peroneal nerve; in the second, motor conduction velocity along the peroneal nerve was markedly reduced. There were also moderate reductions in the sensorial conduction velocities of the median and ulnar nerves, and no response could be evoked with sural nerve stimulation. Both sensory and motor parameters were normal in all other patients. There were no correlations between our findings and the patient's PASI index, the presence of arthro-myalgia, the duration of the disease or alcohol/tobacco use. These findings demonstrate the integrity of the peripheral nervous system (at least as far as large fibers are concerned) in psoriasis patients. These large fibers do not appear to play a significant role in this disease.

### KEY WORDS

*psoriasis, myelinated fibers, nerve conduction*

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### INTRODUCTION

The relationship between psoriasis and the peripheral nervous system is still unclear and is the object of discussion.

In several publications (1,2,3), Farber et al. have reaffirmed their belief that substance P contributes significantly to the development of psoriasis lesions by inducing neurogenic inflammation. Their conclusions are based, in part, on their observations of several

patients who experienced spontaneous remission of their psoriasis-lesions in regions subjected to surgical anesthesia (4,5). The lesions reappeared when sensation was restored. A number of other studies have also emphasized the importance of substance P and other neuropeptides contained in small unmyelinated sensorial fibers in the pathogenesis of psoriasis (2,6,7).

In cases of traumatic anesthesia, however, myelinated nerve fibers, as well as small unmyelinated C nerve

