



53rd ALL-OHIO SAFETY CONGRESS & EXHIBIT

April 12, 13, 14, 1983

PLAINTIFF'S
EXHIBIT
BRK-29

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March 1, 1983

Legal Section
Industrial Commission of Ohio
246 North High Street
Columbus, Ohio 43215

OD #19500-22
Milton F. Alexander, Sr.
U.S. Steel Corporation
Lorain, Ohio

Attn: Judy Spencer

Dear Ms. Spencer:

Milton Alexander's dupuytren's contracture occupational disease claim is as "flexion contraction condition of the ring and middle finger of his right and left hands".

The claimant indicates in the file that his machinist occupation with U.S. Steel, as well as his prior employment history (i.e. heavy equipment operator and machinist), have, apparently all been dominated by manual hand work. Moreover, the file's Martins Ferry Hospital Records (7-19-81) draws attention to the fact that:

Some twenty years prior to admission patient states that he began to experience limitation on full extension of the second and fourth finger in each hand. Patient states that the limitation of motion has markedly increased during the last five years.

According to the ILO Encyclopedia of Occupational Health and Safety, the etiological conditions of dupuytren's contracture are, in general, extremely complex and still ill-defined. There, however, have been cases which show a clear correlation between the nature of the subject's work and the appearance of the disease. Further, statistics display that workers who suffer repeated microtraumata of the hand are often affected.

The NIOSH publication on Occupational Diseases: A Guide to Their Recognition states that segmental vibration, unlike wholebody vibration, appears to be more a localized stressor creating injury to the fingers and hands of exposed workers using such vibratory hand tools as chain saws, pneumatic chipping hammers and picks, and electrically operated rotary grinders. The document also refers to the fact that there have been reported cases of dupuytren's disease due to vibratory damage.

The Industrial Commission of Ohio • Division of Safety and Hygiene • 246 N. High St. • Columbus, Ohio 43215

Richard F. Celeste, Governor • W. Craig Zimpher, Industrial Commission Chairman • Steven A. Hatten, Vice Chairman • Leonard T. Lancaster, Member
Philip A. Workman, Safety and Hygiene Superintendent • Bob Riley, Assistant Superintendent • Lawrence J. Whalen, Manager of Special Programs and Conferences

In another article by H. Gage on the "Correlation of Segmental Vibration with Occupational Disease", the pertinent factors of trauma are noted to be highly interrelated so that discerning all the details of the process is difficult.

Many unique parameters can apply in each given situation, the most important of which are tool mass and its distribution, ambient environmental conditions, amplitude and frequency characteristics of the forcing function, handle configuration, grip used, force applied, and protective clothing worn.

Additionally, the ILO reference states that the onset of Dupuytren's contracture is usually insidious. "Localization of lesions varies and is definitely influenced by occupation." The course of the disease may be continuous or intermittent; spontaneous regression does not occur.

When considering the given medical information and literature resources, along with a total work history involving many variables of hand work, it would be extremely difficult to establish a specific causative factor in this case. With specific reliable research data being rare and too incomplete to form a basis for a sound understanding of the disease, it would appear that the diagnosis should be verified by objective clinical findings. The results, possibly in favor of the relative incidence of the disease, should then be judged due to a precipitative or causative nature of the occupation(s) in question.

Respectfully submitted,



Jane A. Tyka
Industrial Hygienist

JAT/r1

U.S. Steel Corp.

-LORAIN

101 pages

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