### CURRENT CONCEPTS IN ARTHRITIS

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### PALEOARTHRITIS WORKSHOP

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### ARTHRITIS IN ANTIQUITY

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### Hunter-Gatherer/Agriculturalist Arthritic Patterns: A Preliminary Investigation

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Arthritis: Modern Concepts and Ancient Evidence

Arthritis means literally inflammation of a joint, but, by custom, this term is used in a general sense to cover a wide range of diseases, including some which are chiefly non-inflammatory in nature. Arthritis is the most common "disease" reported in relics from the past, because specimens that survive from antiquity are chiefly bones. Soft tissues are rarely preserved unless the bodies are deliberately mummified by human art, fortuitously protected as in the peat bogs, or maintained by a desiccating climate. Since the major function of joints is movement, they are more susceptible to daily wear and tear than the nonmoving parts of the skeleton. The pattern of bony changes can sometimes be related to specific tasks within a given population or may simply reflect disease processes.

In view of the prevalence of so-called arthritis and the abundance of specimens from the past, it behooves the paleopathologist to give this area of study a high priority. The existing difficulty, however, is that archeologists and physical anthropologists who find these specimens first and who mainly study ancient bodies are usually not trained in any depth in the field of pathology. On the other hand, pathologists and rheumatologists who have the necessary skills and experience to identify specific disease processes rarely, if ever, have the opportunity to examine this excavated material. To further complicate the situation, the etiologic mechanisms of some major diseases of the joint are still unknown so that the progressive events of soft tissue and bony damage remain puzzling even to those who spend a lifetime of study in this area.

For these reasons, it seemed to me that a comprehensive approach which combined the knowledge of practicing physicians and of students of the past might be fruitful. Dr. Jeanne M. Riddle and Dr. Howard Duncan, staff members of the Division of Rheumatology at Henry Ford Hospital, who are also members of the Paleopathology Association, agreed, and together we organized a symposium on the subject of arthritis in antiquity. Appropriate specialists from the Hospital staff were requested to present an overview of current information on the major types of arthritis (Section I). Eve Cockburn and I organized the section on "Arthritis in Antiquity," which included paleopathologists and physical anthropologists. Henry Ford Hospital was most cooperative in hosting the symposium, which was held on September 23, 1978.

In addition, the Department of Orthopaedic Surgery at the Hospital substituted the symposium for its weekly grand rounds, and everyone present benefited from their expertise as they participated in the different discussions. All told, roughly one hundred scientists attended, representing at least a dozen widely ranging disciplines.

A very important part of this symposium was the actual examination of ancient specimens by the modern specialists. It is obviously important to look at the best material that can be obtained, for one actual bone is worth a host of photographs. The paleopathologists and physical anthropologists brought a variety of ancient bone specimens with them to the symposium, and Dr. Theodore A. Reyman organized the display. He also later collated the opinions of the specialists who examined this material (Section II).

The main purpose of the symposium was to clarify the diagnosis of those diseases found in ancient bodies and bony remains that are now lumped together under the general heading of "arthritis." We did not expect to find answers to all the existing questions, but it was hoped that at least the problems would be identified. How far this objective was achieved can be seen in the subsequent pages of this issue.

—Aidan Cockburn, MD
President, Paleopathology Association
CURRENT CONCEPTS IN ARTHRITIS

Osteoarthritis
Howard Duncan, MD

Ankylosing Spondylitis
Carlina V. Jimenea, MD

Gout and Pseudogout
Gilbert B. Bluhm, MD

Rheumatoid Arthritis
Jeanne M. Riddle, PhD

Arthritis: A Radiologic Overview
Cordon H. Beute, MD

PALEOARTHRITIS WORKSHOP

The Search for “Arthritis” in Antiquity
T. A. Reyman, MD

ARTHRITIS IN ANTIQUITY

Osteoarthritis in Prehistoric Turkey and Medieval Byzantium
J. Lawrence Angel, PhD

Biochemical Discovery of Homogentisic Acid Pigment in an Ochronotic Egyptian Mummy
Frederick F. Stenn, MD
James W. Milgram, MD
Sandra L. Lee, PhD
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Hunter-Gatherer / Agriculturalist Arthritic Patterns: A Preliminary Investigation
Robert B. Pickering, MA

Vertebral Osteophytosis in Dickson Mound Populations: A Biomechanical Interpretation
George A. Clark, BA
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Debra L. Martin, MA
George J. Armelagos, PhD
Jack R. King, BA

A Survey of Joint Disease at the Libben Site, Ottawa County, Ohio
Marc A. Kelley, MA

Arthritis in Dry Bones: Diagnostic Problems
Claire M. Cassidy, PhD

SYMPOSIUM SUMMARY

The Impact of Rheumatic Disease on Society
James C. Leisen, MD
Howard Duncan, MD

Arthritis, Ancient and Modern: Guidelines for Field Workers
Aidan Cockburn, MD
Howard Duncan, MD
Jeanne M. Riddle, PhD

Guest Editors: Eve Cockburn, MA (Oxon.)
Howard Duncan, MD
Jeanne M. Riddle, PhD