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Radiological and Environmental Research Division  
Argonne National Laboratory

700278

CENTER FOR HUMAN RADIOBIOLOGY

Radiologist's Report

CHR # 40-003

Date read: June 13, 1973

Patient's Name

The chest shows no evidence of abnormality in the heart or lungs. There is atheromatous tortuosity of the descending aorta. The hands show small areas of absorption or lysis in the head of the right thumb-metacarpal and the base of the proximal phalanx of the right thumb, also the middle phalanx of the right middle finger and the heads of the left second and third metacarpals. There are some degenerative changes in the distal interphalangeal joints of the right second, third and fourth fingers and the left third and fourth. Small lucencies are also present in the navicular and capitate bone on each side. Both forearms are normal. The right humerus shows that there are definitely abnormal trabeculae in the region of the greater tuberosity of the humerus and the acromion. Dense spurs are present in the right acromioclavicular joint. The left humerus also shows abnormal trabeculae in the greater tuberosity of the humerus and the acromion, with degenerative changes in the acromioclavicular joint. The cervical spine shows marked spurring in the anterior aspects of the cervical vertebral bodies. The dorsal spine shows calcification in the anterior and lateral spinal ligaments. The lumbar spine shows large and dense spurs along the vertebral margins. The pelvis is normal. The right femur shows no evidence of any gross lesions but there are some very fine stippled densities in the intertrochanteric region. The left femur shows that there has been an amputation about 4" below the lesser trochanter. There are reactive changes of the usual kind at the amputation end. Few fine stippled densities are seen in the intertrochanteric region. The right knee shows evidence of degenerative arthritis. The right ankle shows a large spur on the dorsum of the astragalus. There is an os trigonum and also an accessory scaphoid. The right foot shows some small osteolytic areas in the head of the first metatarsal. The skull and sinuses show no evidence of abnormality. The right and left mastoids show that the cells are normal except for the presence of some larger cells than usual on each side. The mandible shows that there are abnormal trabeculae, with very small lucencies resulting, throughout this bone. Several teeth are missing, but the remaining teeth appear grossly normal.

Impression: There is evidence of degenerative arthritis in a number of areas. There are also a number of radiolucencies in the hands and carpal bones bilaterally which are suggestive of gouty deposits. In the proximal portions of both humeri as well as the adjacent acromions, there are some changes in the trabeculae which are consistent with findings in early radium deposition, but not yet completely specific. The mandible shows abnormal trabeculae, suggestive of damage due to radiation.

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