DIAGNOSTIC ASPECTS OF THREE-PHASE BONE SCINTIGRAPHY IN FOCAL SKELETAL LESIONS

Thesis
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BY

Ahmed Khodair Aly
M.B.B.CH. & M.SC.
Faculty of Medicine
Ain Shams University

Under Supervision of

Prof. Dr. Nawal Zakaria Mohamed
Professor of Radiodiagnosis
Faculty of Medicine-Ain Shams University

Prof.Dr. Mohamed Nabil Khalifa
Professor of Orthopaedics
Faculty of Medicine-Ain Shams University

Ass. Prof. Dr. Ahmed Talaat Khairy
Assisstant Professor of Radiodiagnosis
Faculty of Medicine-Ain Shams University

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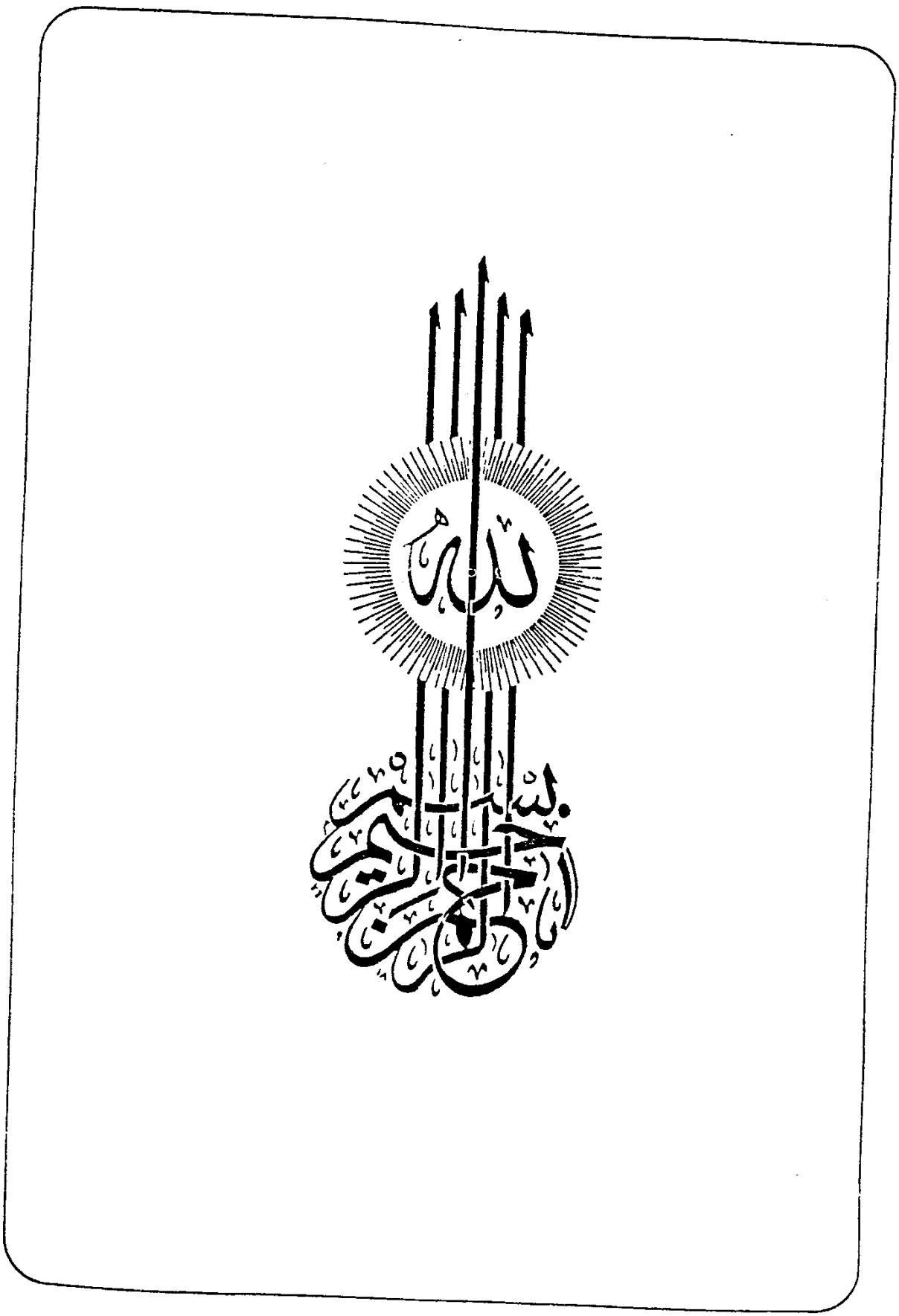

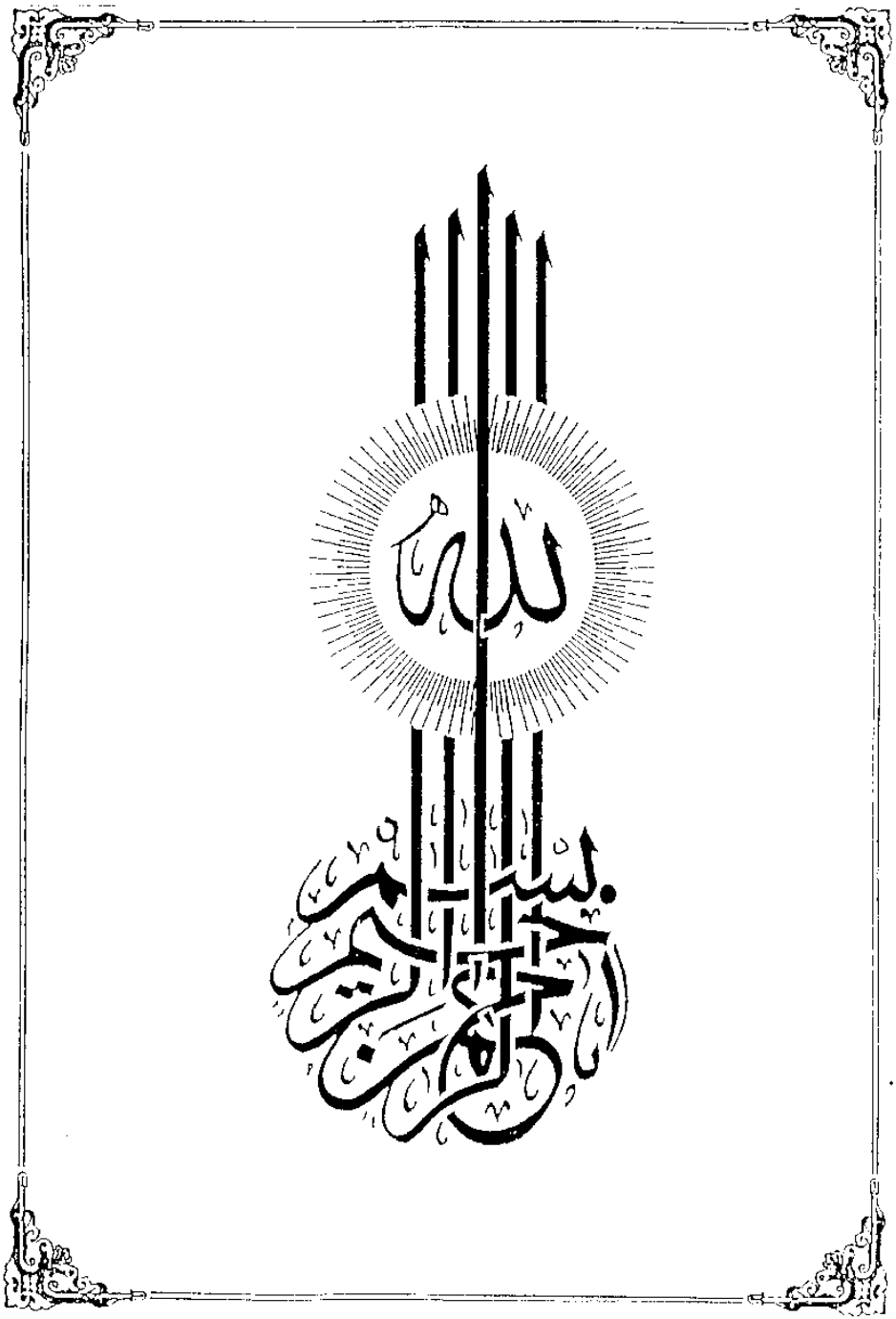

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ABSTRACT

This study was conducted on 120 patients to demonstrate the role of three phase bone scan, and to compare it with x-rays, in patients with focal bony lesions. Three phase bone scan comprised early dynamic images, taken for few minutes after tracer injection (first phase),to study the arterial flow, metabolic blood pool images at 5 minutes (second phase), and delayed static images taken at 3 hours (third phase) to study the osteoblastic activity. Beside three phase bone scan, a whole body skeletal survey was performed in every case, after acquiring the third phase of the localized study. Regional x-rays were also taken in all cases at the site of local bony complaint.

The results of studing the different types of focal lesions showed that three phase bone scan was superior to x-ray in the diagnosis of avascular necrosis, occult and stress fractures, acute osteomyelitis, active exacerbation of chronic osteomyelitis, and in differentiating mechanical loosening from infection around hip prosthesis. The bone