Abstract

A SYSTEM FOR ASSESSING THE SEVERITY OF RHEUMATOID ARTHRITIS

A system for assessing the severity of rheumatoid arthritis, the system comprising one or more processors in communication with a non-transitory data storage media having instructions stored thereon that, when executed by the one or more processors configure the one or more processors to perform the steps of receiving data associated with one or more images of a joint, the data representing: a synovium of the joint; and a Power Doppler representation of fluid flow through the joint; segmenting a synovium area associated with the synovium; segmenting a Power Doppler area illustrating vascularity associated with the fluid flow; identifying one or more feature areas associated with synovial vascularisation; and associating a level of severity of rheumatoid arthritis with the joint, based on a ratio of a total area of the one or more feature areas to the synovium area.

Fig 1