

MRT- BONE MICROARCHITECTURE IN HEPATIC CIRRHOSIS

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Recent studies have reported increased fracture risk in hepatic cirrhosis, even without hepatic encephalopathy or alcoholism. Investigations on dual X-ray absorptiometry (DXA) suggest lower areal bone mineral density (aBMD) but data on bone microarchitecture are scarce.

Areal BMD alone is limited to a two-dimensional view and thereby provides no information on bone microarchitecture and thus bone strength. Therefore, in a study on diabetics DXA was unable to identify patients at increased susceptibility of fragility fractures.

Three-dimensional High-Resolution Peripheral quantitative Computed Tomography (HR-pQCT, “virtual biopsy”) assesses trabecular and cortical bone microarchitecture non-invasively at the distal radius (non-weightbearing bone) and tibia (weightbearing) *in vivo*, with a voxel size of 82 μm .

The aim of this study is to assess the trabecular and cortical compartments of both weight-bearing and non-weight-bearing bones in patients with hepatic cirrhosis, compared to matched healthy controls.