

# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



# جامعة عين شمس

التوثيق الإلكتروني والميكرو فيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
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# بعض الوثائق الأصلية تالفة







# بالرسالة صفحات لم ترد بالأصل



***Monostototic & polystotic marrow  
disorders: MRI characterization  
versus biopsy***

***Thesis***

***Submitted for partial fulfillment of M.D.degree  
(Radiodiagnosis)***

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# *Abstract*

*Magnetic resonance imaging is an excellent noninvasive modality for evaluating bone marrow and detecting marrow lesions, as it provides information at the level of cellular and chemical composition, in addition to gross morphologic data. Knowledge of normal marrow components and composition and their variation, as well as of factors that alter MR signal intensity, is important for optimal interpretation of MR images. The signal intensity, morphology, and location of marrow findings on MRI can be used to provide more accurate diagnoses, to guide treatment, and to follow therapy-related changes. Various MR imaging techniques are available to accentuate the different chemical and cellular compositions of normal marrow and marrow diseases. Although MRI is more sensitive than specific in detecting marrow changes, integrating all the clinical and radiologic data can result in more useful interpretations. In an attempt to overcome the current limitations of MRI, several newer techniques are under investigation that could increase the ability of MRI to provide even more clinically relevant information about marrow in oncology patients. However, the extreme variability in tumor biology, behavior, and histology may make confident differentiation by MRI alone so a biopsy or needle aspiration is required.*

*Key words:* (MRI, biopsy, marrow infiltration).

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