



Service Priorities and Programmes
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Visible Sound - The Role of Diagnostic Musculoskeletal Ultrasound in the Diagnosis of Ganglion Cyst in Anterior Knee Pain: A Case Report

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Introduction

There is growing access to, and evidence in support of, musculoskeletal ultrasound application by physiotherapists as it becomes an important tool for both diagnosing pathology and directing appropriate treatment decision.

Objectives

The purpose of this commentary is to illustrate, through a case study, how musculoskeletal ultrasound in physiotherapy can have a positive effect on patient management.

Methodology

A patient presented with bilateral chronic anterior knee pain was referred for physiotherapy management. She did not have any history of major injury and her past health was good. Both radiological finding and physical examination did not reveal any positive sign or pathology except mild localized tenderness was noted over the anterior aspect of her knees below the patella beside the patellar tendon. As a result, she was hypothesized as suffering from "Fat Pad Irritation" by her attending physiotherapist. However, the symptom did not improve despite of a short course of physiotherapy for pain/inflammatory control and conditioning. Hence, her case was put up for review and expert consultation.

Result

There are multiple structures that can cause anterior knee pain due to their close proximity to each other. Differentiating these structures/conditions during a clinical examination is often challenging especially in this case when there was absence of positive findings except some localized tenderness. A musculoskeletal ultrasound was

recommended in the review meeting. There was visible sonographic evidence of a distended cystic lesion located within the Hoffa's fat pad on both knees. The presentation was highly suggestive of symptomatic ganglion cyst as they owned all the typical appearances of ganglion cyst at ultrasound.

Physiotherapy was suspended subsequently as it would not benefit the patient further. The patient was immediately referred to Orthopaedics for appropriate secondary care. The evidence suggests that physiotherapists can use their strong knowledge of anatomy and experience in musculoskeletal examination to appropriately decide when to perform ultrasound imaging studies. The combination of ultrasound alongside sound clinical reasoning of a patient presentation can enhance patient care. An accurate diagnosis of the pathology enables realistic time frames for appropriate treatment.