

Inflammatory Mechanisms in soft tissue disease: Dissecting immune mechanisms in Dupuytren's Disease

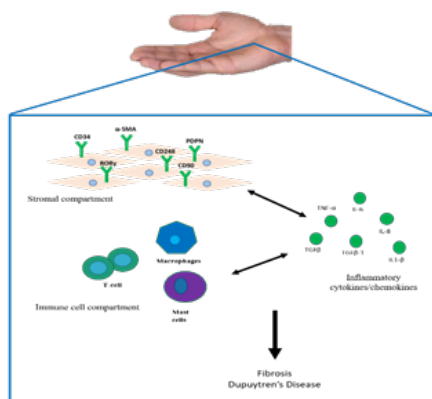
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Abstract

Dupuytren's disease (DD) is a fibroproliferative disease that is the result of the palmar tissue thickening, causing the fingers to curl inward. Dupuytren's disease is commonly presented by men, of European descent, that are 65 years or older. In the United States, there are 3 cases per 10,000 and in the United Kingdom, there are 3 cases per 100,000. This disease is usually not reported as many people don't know they have the disease or do not care to undergo treatment because post-operative results have shown the disease recurs during the individual's lifetime. Early stage DD presents as a nodule and progresses into a thickened cord causing the fourth and pinky finger to curl inwards. The etiology of the disease has not been sourced to a single factor; however, it has been suggested that labor intensive professions, diabetes, smoking, and drinking lead to higher chances of developing DD. Dupuytren's disease tissue, characterized by thickened palmar tissue and the formation of nodules and a cord, is a model of tissue fibrosis and chronic inflammation. The development of the symptoms-nodules and cord- are the result of excess production of extracellular matrix (ECM) components.

This study will assess the presence of stromal activation markers, identified by previous literature, in Dupuytren's tissue. Additionally, we aim to characterize the immune cell population within Dupuytren's. We hypothesize that Dupuytren's disease tissue will express stromal activation markers and demonstrate an excess of immune cell phenotype-both of which contribute to the persistence of the disease.



Biography

Kristyn Carter began her work of musculoskeletal disease during her master's thesis at the University of Glasgow under Mr. Neal Millar, in the Tendon Biology Group. She is now continuing her work as a PhD student in the Tendon Biology Group aiming to understand underlying immune mechanisms in Dupuytren's disease.