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Treatment of Undifferentiated Connective Tissue Disease by Primary Care Providers using csDMARDs

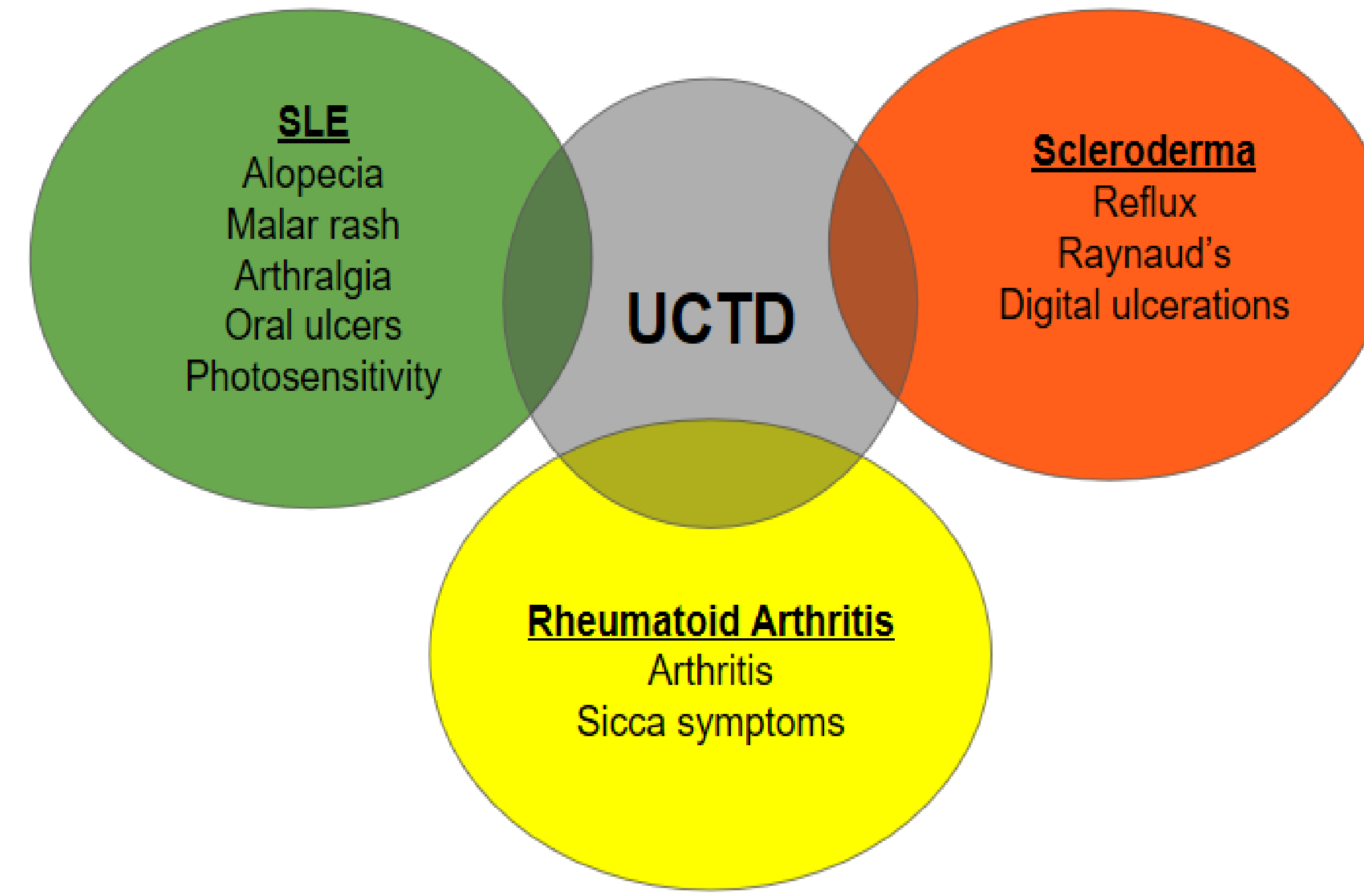
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Abstract

- Undifferentiated connective tissue disease (UCTD) is an autoimmune disease that presents similarly to other rheumatic conditions but fails to meet laboratory requirements which indicate a specific disease such as rheumatoid arthritis, systemic lupus erythematosus, Sjogren's or scleroderma.
- UCTD presentation can include arthralgias, myalgias, fatigue, fever, Raynaud's phenomenon and sicca like symptoms with a positive antinuclear antibody (ANA) test.
- Patients with UCTD symptoms are normally referred to rheumatology but a shortage exists leaving primary care providers to treat UCTD patients.
- Using disease modifying antirheumatic drugs (DMARDs) such as hydroxychloroquine is an option but it is not commonly prescribed by PCPs.
- The study's purpose is to determine if PCPs can effectively initiate and appropriately manage UCTD patients using DMARDs, such as hydroxychloroquine, to reduce the patient's symptoms and functional impairment.
- Using DMARDs, NSAIDs and low dose corticosteroids in UCTD patients provided by PCPs can improve arthralgias, myalgias, fever, and functional limitations.
- Majority of rheumatologists and PCPs feel UCTD patients should be referred to rheumatology for treatment, yet there is some evidence that PCPs can also initiate and manage the treatment effectively.
- In the absence of rheumatology, PCPs using DMARDs such as hydroxychloroquine can safely and effectively provide treatment for these patients



Berman, J. R. (2017, July). Undifferentiated Connective Tissue Disease: In-Depth Overview. Retrieved from https://www.hss.edu/conditions_undifferentiated-connective-tissue-disease-overview.asp.

Research Question

In the absence of rheumatology, can primary care providers effectively initiate and appropriately manage patients with UCTD using conventional synthetic disease modifying antirheumatic drugs, such as hydroxychloroquine, to reduce patient's symptoms and functional impairment?

Literature Review

Clinical and Serological Presentation of UCTD

- UCTD clinical course includes Raynaud's phenomenon, sicca symptoms, arthralgias, arthritis and mucocutaneous manifestations - photosensitivity, malar rash, and oral aphthous ulcers as well as a positive ANA for at least 3 years (Mosca, 2004)

Prevalence of UCTD

- UCTD patients are predominantly middle-aged females with disease onset between 32-44 years of age. (Conti et al., 2010)
- 20% of newly referred patients to rheumatology may fall within the undifferentiated profile excluding rheumatoid arthritis. (Mosca et al. 2011)
- Between 50-70% patients remain undifferentiated. (Conti et al., 2010 & Mosca et al., 2011)

Prescriptive Treatment Methods for UCTD

- Use of hydroxychloroquine, NSAIDs, and low dose corticosteroids was sufficient to maintain UCTD in an inactive status including a reduction of arthralgias, functional limitations, myalgias and fever. (Conti et al., 2010).
- It is recommended that early UCTD patients have strict follow up at least every six months. (Conti et al., 2010).
- One-third of rheumatologists and general practitioners agreed that when rheumatology availability is limited, then csDMARDs could also be initiated by a general practitioner. (Puchner et al., 2016).

Role of Primary Care in the Management of UCTD

- On average, 10.3% of the patients made at least one visit to primary care for inflammatory arthritis. (Badley et al., 2015)
- Primary care providers were less likely to use csDMARDs to treat connective tissue disease symptoms. (Badley et al., 2015)
- DMARD treatment in primary care was imperative because unnecessary referrals of patients diagnosed with rheumatic condition increased the work overload in rheumatology practices. (Puchner et al., 2016).
- Although csDMARD therapy is not commonly initiated by primary care physicians, DMARDs are recommended, especially when timely access to rheumatologists is limited. (James et al., 2007).

Discussion

- Puchner et al. (2016) and Badley et al. (2015) identified the role of primary care providers to be significant in treating early connective tissue disease due to the rheumatology shortages.
- Small percentage of the primary care physicians acknowledged having initiated DMARD therapy, but the majority of general practitioners pointed out that they would prescribe DMARDs. (Puchner et al., 2016)
- Possible delays in referrals to rheumatology resulted in long-term harm, including joint inflammation and destruction
- Primary care providers comfort level and knowledge of DMARD therapy use can be limiting factors
- Current studies have provided significant data supporting the use of DMARDs in treating UCTD, but there is minimal evidence that supports the use of DMARDs by primary care providers.

Clinical Features of UCTD	% Patients
Fatigue	83
Raynaud's syndrome	61
Arthralgia	56
Muscle pains	56
Fever	51
Polyarthritis	51
Xerophthalmia	29
Xerostomia	27
Weight loss	24
Thyroiditis	19
Oral aphthosis	17
Lymphadenopathy	17
Urticaria	17
Synovitis	15
Serositis	14
Photosensitivity	12
Erythema nodosum	9
Other	7

Conti, V., Esposito, A., Cagliuso, M., Fantauzzi, A., Pastori, D., Mezzaroma, I., Aiuti, F. (2010). Undifferentiated Connective Tissue Disease-An Unsolved Problem: Revision of Literature and Case Studies. International Journal of Immunopathology and Pharmacology, 23(1), 271-278. doi:10.1177/039463201002300125.

Applicability to Clinical Practice

- Primary care providers have an opportunity to greatly impact the progression and detrimental effects of UCTD using early csDMARDs therapy.
- Given the gap and lack of accessibility to rheumatologists by patients with UCTD, health care sector could collaborate with primary care providers to offer formal training.
- Rheumatology organizations should consider the possibility of working with physician assistant programs and schools of nursing to integrate rheumatology into the curriculum. (Solomon et al., 2014)
- Greater comfort in prescribing DMARDs could be achieved by altering the design of educational programs for primary care providers. (Gerneau et al., 2012).
- There continues to be a need for improving awareness and education regarding diagnosing and treating UCTD patients in primary care where early treatments with DMARDs make a significant impact on a patient's health and quality of life.

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Introduction

- UCTD is also known as incomplete lupus erythematosus, undifferentiated systemic rheumatic disease, latent lupus, and potential lupus.
- Rheumatology shortage of 50% by 2025: UCTD patients will face long wait times and declined referrals. (Basen, 2016).
- DMARDs, such as hydroxychloroquine: proven effective in treating patients with UCTD, SLE, and RA.
- Primary care providers (PCP) play a key part in early recognition and referral of patients with UCTD symptoms.
- Scholarly project focus is review of available literature which demonstrates the use of csDMARDs by PCPs in treating UCTD patients.
- Projected outcome is that pain and functional impairment can be decreased via treatment by PCP's using hydroxychloroquine in the absence of rheumatology intervention.

Statement of the Problem

- Use of csDMARDs by rheumatologists has the potential to control rheumatic diseases.
- UCTD patients often lack access to timely treatment by rheumatology.
- Delaying treatment may result in ongoing symptoms such as but not limited to arthralgias, myalgias, and functional impairment.
- UCTD patients who do not have access to rheumatologists frequently look to their primary care providers for treatment
- Question: Is it possible to effectively decrease the inherent symptoms of UCTD by offering early interventions using csDMARDs such as hydroxychloroquine through a primary care provider?

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