AUTO IMMUNE DISODERS EMERGING TRENDS FROM RA TO MCTD - A CLINICAL OVERVIEW – WITH AYURVEDIC TREATMENT MODALITIES.

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ABSTRACT

One of the classically accepted features of the immune system is the capacity to distinguish self from non self. Recognition of self plays a important role in shaping both the B cells and T cells repertoire of the immune receptors and plays a essential role in the recognition of nominal antigens by T cell, the development of potentially harmful immune responses to the self antigens is, in general precluded. Since Ehrlich first postulated the existence of mechanism to prevent the generation of self – reactivity in 1900, ideas concerning the nature of this inhibition have developed in parallel with the progressive increase in understanding of immune system. Burnets clonal selection theory included the idea that the interaction of lymphoid cells with their specific antigens during fetal or early postnatal life would lead to elimination of such “forbidden clones.” Looking back to decade ago very rare to find the cases of MCTD but comparing the presenting scenarios the more patients are presenting with not only the RA but also some other features of the MCTD collectively. This was the change observed in the population due to the change in the dietery and life style modifications which is presently contributing as the major part of the disease aetiology and major burden of the disease causing factors. Treatment of the autoimmune disease can focus on suppressing the induction
of auto immunity, restoring normal regulatory mechanism, or inhibiting the effectors mechanism.

KEYWORDS: Autoimmune, rheumatoid arthritis, Mixed connective tissue disorders, Mimicry.

INTRODUCTION

Auto-immunity represents the end result of the breakdown of one or more of the basic mechanism regulating immune tolerance. The essential feature of an autoimmune disease is that tissue injury is caused by that tissue injury is caused by the immunologic reactions of the organism with its own tissues: Autoimmunity may be seen in normal individuals and higher in frequency in normal older people. In addition, auto reactivity may develop during various infectious conditions. The expression of auto immunity may be self limited, as occurs with many infectious processes, or persistent. When auto immunity is induced by an inciting event, such as infection or tissue damage from the trauma or infarction, there may or may not be ensuring pathology, it may be difficult to determine whether the damage is mediated by auto reactivity. \[1\]

Currently, three general processes are thought to be involved in the maintenance of selective unresponsiveness to auto antigens.

1. Sequestration of self antigens rendering them inaccessible to the immune system.
2. Specific unresponsiveness (tolerance or energy) of relevant T or B cells;
3. Limitation of potential reactivity by regulatory mechanism.

Mixed connective tissue disease (also known as Sharp's syndrome), commonly abbreviated as MCTD, is an autoimmune disease in which the body's defense system attacks itself. It was characterized in 1972, and the term was introduced by Leroy in 1980.

It is sometimes said to be the same as undifferentiated connective tissue disease, but other experts specifically reject this idea. Mixed connective tissue disease has signs and symptoms of a combination of disorders — primarily lupus, scleroderma and polymyositis. For this reason, mixed connective tissue disease is sometimes referred to as an overlap disease.

In mixed connective tissue disease, the symptoms of the separate diseases usually don't appear all at once. Instead, they tend to occur in sequence over a number of years, which can make diagnosis more complicated.
Early signs and symptoms often involve the hands. Fingers might swell like sausages, and the fingertips become white and numb. In later stages, some organs — such as the lungs, heart and kidneys — may be affected.

There’s no cure for mixed connective tissue disease. The signs and symptoms are usually treated with certain medications, such as prednisone.

**MCTD combines features**[2]

- Scleroderma.
- Myositis.
- Systemic lupus erythematosus (SLE).
- Rheumatoid arthritis (with some sources adding polymyositis.
- Dermatomyositis, and inclusion body myositis).

**MCTD commonly causes**

- Joint pain/swelling,
- Malaise,
- Raynaud phenomenon,
- Sjögren's syndrome,
- Muscle inflammation, and
- Sclerodactyl (thickening of the skin of the pads of the fingers).

**Diagnosis**

Distinguishing laboratory characteristics are a positive, speckled anti-nuclear antibody and an anti-U1-RNP (Ribo Nuclease Protein) antibody.

**Aetiology**

It has been associated with HLA-DR4.

**Prognosis**

The prognosis of mixed connective tissue disease is better than that of systemic lupus erythematosus (SLE).

In spite of prednisone treatment, this disease is progressive and may in many cases evolve into a progressive systemic sclerosis (PSS), also referred to as diffuse cutaneous systemic scleroderma (dcSSc) which has a poor outcome. In some cases though the disease is mild and
may only need aspirin as a treatment and may go into remission where no Anti-U1-RNP antibodies are detected, but that is rare or within 30% of cases.

Most deaths from MCTD are due to heart failure caused by Pulmonary Arterial Hypertension (PAH).

**Symptoms**

Early indications of mixed connective tissue disease can include.

- General feeling of being unwell. This malaise may be accompanied by increased fatigue and a mild fever.
- Cold and numb fingers or toes (Raynaud's phenomenon). In response to cold or stress, your fingers or toes might turn white and then purplish blue. After warming, the fingers or toes turn red.
- Swollen fingers or hands. Some people experience swelling to the point where the fingers resemble sausages.
- Muscle and joint pain. Joints may become deformed, similar to what occurs with rheumatoid arthritis.
- Rash. Red or reddish brown patches may appear over the knuckles.

**CAUSES**

The precise cause of mixed connective tissue disease isn't known.

Mixed connective tissue disease is an autoimmune disorder. In autoimmune disorders, your immune system — responsible for fighting off disease — mistakenly attacks healthy cells.

In connective tissue diseases, your immune system attacks the fibers that provide the framework and support for your body. Researchers are working to identify proteins produced by the immune system that might cause mixed connective tissue disease.

Some people with mixed connective tissue disease have a family history of the condition. But the role of genetics in causing the disease remains unclear.

**What you can do?? Go for Ayurveda — The unique procedures and preparation mentioned in the classics having the great potential to re correct the excited or over functioning immune system.**

- Ayurvedic understanding of the AUTOIMMUNE DISORDERS----
As per the explanation we get in the Charaka Samhita – The concept of the VIRUDHHA AHARA[^3] which can be considered as the root cause of the present AUTOIMMUNE DISORDERS and continuous usage of the Viruddha Aahar leads to various disorders from localized to multisystem disorders.

While referring the Charaka Samhita the explanation we will of VIRUDHHA Ahara is SHARIRA DHATU VIRODHAM KURVANTI[^4], that which is incompatible to body tissues and which is directed towards the body tissue. At the same time the another explanation we will get is that which causes the DOSHAA SRAVA is nothing but the inflammatory markers or the Titres is increased due to damage to the body tissues.

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<thead>
<tr>
<th>SR NO</th>
<th>MODERN PERSPECTIVE</th>
<th>AYURVEDIC PERSPECTIVE</th>
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<tbody>
<tr>
<td>1.</td>
<td>AUTOIMMUNE</td>
<td>VIRUDDHA AHAAR</td>
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<tr>
<td>2.</td>
<td>AUTOIMMUNE ANTIBODIES/ TITRES PROFILE</td>
<td>DOSHAA SRAVA</td>
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Some of the correlation of the autoimmune disorders and the diseases caused by the Viruddha Aahaar Sevana ---

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<thead>
<tr>
<th>SR NO</th>
<th>AUTOIMMUNE DISORDERS</th>
<th>VIRUDDHA AHAAR JANYA ROGA[^5]</th>
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<tbody>
<tr>
<td>1.</td>
<td>Autoimmune Anemia</td>
<td>Paandu</td>
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<td>2.</td>
<td>Visphota</td>
<td>Bullous Pempigoid</td>
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<tr>
<td>3.</td>
<td>Kilas</td>
<td>Pemphigous Vulgaris</td>
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<tr>
<td>4.</td>
<td>Kushtha</td>
<td>Skin Problems</td>
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<tr>
<td>5.</td>
<td>Amlapitta</td>
<td>Autoimmune gastritis.</td>
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<td>6.</td>
<td>Grahani</td>
<td>Inflammatory Bowel diseases.</td>
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<tr>
<td>7.</td>
<td>Shotha</td>
<td>Different Kind of the Swelling.</td>
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<tr>
<td>8.</td>
<td>Shandya</td>
<td>Antiphospholipid Syndrome.</td>
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With due consideration given to the Viruddha Ahaar also consider as the main and prime aetiology in the disease called AAMA VATA[^6] - Which is correlated with the Rheumatoid arthritis in the early stages and can be compared with the MCTD and the Multisystem autoimmune disorders such as SLE, Anti Phospholipid Syndrome, Wegners glomerulonephritis, Stiff man syndrome, Rheumatoid Arthritis, Systemic Necrotizing vasculitis, Antiphospholipid Syndrome.

**Ayurvedic Management** -- The Main objective is the Virodhik NimmitajanaVyadhim Pratikara.[^7]

And this can be achieved by the following.

- **Vamana – Emesis[^7]**
- Virechana- Purgation.\textsuperscript{[7]} 
- Poorvaabhisamskaar\textsuperscript{[7]} – Continuous usage of the compatible food. 
- Rasayana Prayog\textsuperscript{[8]} – Rejuvination Therapy to keep the body tissues healthy. 
- Concepts Explained in the \textit{ANAGATA ABADHA PRATISEDH ADHYAA}\textsuperscript{[9]} – the measures to be taken to prevent the occurrence of the disease and stay healthy. Preventive approach from the diseases.

\textbf{The only way to do that}
- Reduce the overload in the blood by doing the RAKTAMOKSHANA.
- By doing the VIRECHANA – Redistribution of the fluid from the ICF-ECF making the heamo dynamic compromise and expecting significant changes. 
- Giving RASAYAN preparations to the person.

\textbf{CONCLUSION}
Science is an ever changing field. It may be in case of disease, medicine, investigations and technology used in medicine. Same has been observed in the case of the RA where decades back used to found only the diagnosed as RA but at present the scenarios are changing few people are presenting not only with the RA but also the other connective tissues disorders and presently called as MCTD – Mixed connective tissue disorders and RA is one among the major component of the MCTD. Rheumatoid arthritis is a well known disease since decades with the very minimal significant approach as the disease itself is multisystem, evolving, progressive and debilitating. But if screen through by using the Ayurvedic parameters the disease can be detected earlier itself in premonitory stage as such parameters are lacking in the contemporary sciences and makes the sciences lame in front of the pathology and totally rely on the unstable markers which are keep on changing on every decade before it was RA factor now it is Anti CCP in the future it will be anti MCV and post future nobody knows as if some race is going on detection of the innocent antibodies which only partially proved that they are harmful for the body even such antibodies found in the absolutely normal individuals.

Now it time to think beyond the antibody, some raised titers and immunosuppressant. What is the need of the suppressing the immune system which is only the one sided blind approach need to think beyond that and adopt the other approach as mentioned in the Harrison text book of medicine if you want to tackle autoimmune system either suppress it and modify it.
Let’s consider the second approach and see from the contemporary science they are bare hand because they have not even thought of the second concept to make it implement for the management but the approach was clearly, time tested and evident in the Ayurvedic text which can prove as boon for the emerging trends in the RA to MCTD without suppressing the immune system which even prove fatal than the actual disease for which it being scaled down to significant level after due course of immunosuppressant treatment.

REFERENCES