Autoimmune disorders – an Ayurveda perspective

Gangadharan GG, Ayurvedacharya, FAIP (USA), PhD, MoM (McGill, Canada)
Director, Ramaiah Indic Specialty Ayurveda
A unit of Gokula Education Foundation (Medical)
New BEL Road, MSR Nagar, Mathikere PO, Bengaluru - 54
Tel: +91-80-22183456, +91-9632128544, Mob: +91-9448278900
e-mail: vaidyaggganga@gmail.com
Website: http://www.msricaim.com/
Introduction

- Immune system is defined as a sophisticated and highly evolved network of integrated body system including organs, tissues, cells and cell products with a mission to provide resistance and or retaliation to foreign agents or invaders physiologically.
- Under normal circumstances immune system will not destroy self antigens.
- Autoimmunity can be defined as breakdown of mechanisms responsible for self tolerance and induction of an immune response against components of the self.
- In numerous autoimmune diseases it is well recognized that products of the immune system cause damage to the self.
• Autoimmune diseases are the result of damage to the body by the presence of autoantibodies or autoreactive cells
• About 2% of the population are affected by such diseases
• There is a breakdown of self tolerance in these individuals
Autoimmune *Response vs Disease*

- **AUTOIMMUNE RESPONSE** – (?Chaya and Prakopa avastha)
  - Antibody directed against “self”, termed auto-antibody
  - Considered abnormal but usually does not result in disease.
  - May occur in healthy individuals.
- **AUTOIMMUNE DISEASE** – (?Prasara onwards)
  - Disorder in which tissue injury is caused by an immunologic reaction of the host to its own tissues.
  - Precise mechanisms unknown.
  - Classified as systemic or organ specific, frequently have overlap.
The Spectrum of autoimmune Diseases – still counting!

Organ specific

- Hashimoto’s thyroiditis
- Pernicious anaemia
  - Insulin dependent diabetes
  - Myasthenia gravis
  - Multiple sclerosis

Systemic

- Ulcerative colitis
- Rheumatoid arthritis
- Systemic lupus erythematosus
Proposed Mechanisms

• Forbidden clone - altered lymphocytes arise through mutation; attack own cells
• Altered antigen - surface antigens on host altered by chemical, biological or physical means, hence recognised as foreign
• Sequestered Antigen- antigens in the body are hidden from cells of the immune system; damage releases them causing reaction
• Immunologic deficiency theory - increased frequency of auto-antibodies and increased immune system deficiency to age
• Genetic influence

Very similar to Sahaja, Kalakrita and Yuktikrita aspects of Bala and their relation with Vyadhikshamatva
Ayurveda concepts – autoimmune diseases – Tridosha sahaja satmya

- **Tridosha samatva**
  समद्रोषः समाभिश्च समधातुमलक्रिया:।
  प्रसन्नात्मेन्द्रिय मनः स्वस्थ इत्यभिधीयते॥सु ।सू ।१५ ।१४॥

- **Sahaja satmya** (C.S.Ci.26/293)
  विरुद्धैरवि न ल्वेते गुणैर्घ्नति परस्परम्।
  दोषाः सहजसात्मत्वादिशिष्य घोरमहीनिव॥

- Natural wholesome disposition of coexistence
• Vikriti vishama samaveta

न हि विकृतिविषमसमवेतानां नानात्मकानां परस्परेण 
चोपहतानामन्येश्र विकल्पनैर्विकलिपितानामवयवप्रभावानुमानेनैव 
समुदायप्रभावतत्त्वमध्यवसातुं शक्यम्।।१०।।CS.Vi.1/10

• The concept of Vikriti vishama samaveta of dosha 
samsarga/sannipata holds very true in the case of autoimmune 
diseases

• Assessment of clinical presentation as per dosha differs very much 
from the underlying pathology due to
  • Parasparena upahatanam - dosha may suppress each other
  • Nana pramananam - difference in the proportions of the vitiated 
    dosha
  • Anyaischavikalpanairvikalpitanam – combination of dosha with 
    dhatu changes

• Hence, virulence is high, management is difficult and long drawn
Ayurveda concepts – autoimmune diseases – Agni and Ama

- Aberrant metabolism
- Ama - Toxic, pro-inflammatory, waste-product
- Sama dosha and Srotorodha
- Disease

Mechanism of aberrant Agni and Ama production may occur at macro and microlevels
Ayurveda concepts – autoimmune diseases – VyadhiKshamatva and Ojas

- VyadhiKshamatva and Ojas

- व्याधिक्षमत्वं व्याधिबलविरोधित्वं व्याध्युत्पादप्रतिबन्धकत्वमिति यावत् (Chakrapani)

PHYSIOLOGY

- Sahaja bala or primary natural bio-strength and immunity

- Kālaja bala or acquired immunity through environmental factors such as age, climate etc

- Yuktikrita bala or the artificially induced acquired bio-strength and immunity
PATHOLOGY

- **Ojavyāpat** (immune-aberrations and allergies)
- **Ojavisramsa** (dislodged immunity and autoimmune disorders) and
- **Oja-kshaya** (immunodeficiency)

त्रयो दोषा बलस्योक्ता व्यापद्रिःसंसनक्षयाः | विश्लेषसादृश गात्राणां दोषविस्फंक्ष्यं श्रमः ||२५|| अप्राचुयं क्रियाणं च बलविस्फंक्ष्यमन्त्रम् | गुरुत्वं स्तब्धतां इऽषु ग्ला०निर्वर्णस्य भेदनम् ||२६|| तन्न्या निद्रा वातशोको बलव्यापदे लक्षणम् | मूर्च्छा मांसक्षयो मोहः प्रलापो ज्ञानमेव च ||२७|| पूर्वाक्तानि च लिङ्गानि मरणं च बलक्षये |२८| SS.Su.15/25-28
Holistic therapeutics – strength of Ayurveda

• Focus is on
  
  • **Host factors** rather than disease factors
  
  • **Whole system** rather than target tissue
  
  • **Multidrug/therapy** rather than single molecule
  
  • **Preventive** and **promotive** in addition to curative
1. Customised intervention that varies according to individual constitutional frame work \textit{(prakriti)} and the stage \\ & phase of disease.


3. A systemic cleansing of body \textit{(shodhana chikitsa)} using techniques of \textit{Panchakarma} that is unique to Ayurveda.

4. A treatment approach that has \textbf{homeostasis or restoration of balance as its end point}. In this approach, stress is laid on two things:

\textit{a. Apunarbhavatva: Achieving a stable state of homeostasis that does not} relapse to the prior diseased stage (non-recurring).

\textit{b. Yonyamanyamudeerayet: Achieving homeostasis without causing any disturbance to any other systems (without side-effects).}
• Rasayana – Ensure excellence of tissue elements by
  • **Deepana, pachana** (enhanced metabolism)
  • **Srotoshodhana** (detoxification)
  • **Poshana** (nourishment)
• All these three events singly or jointly lead to improved nutritional status in the body leading further to the formation of the best qualities of cells and tissues which sustain aging and stress
Robust research based discoveries – need of the hour

- Research based evidence exists albeit minimal
  - Rheumatoid arthritis – polyherbal combination with blackbox paradigm and with Ayurveda medicine like placebo (Furst DE et al, 2011a,b); curcumin supplements (Amalraj A et al, 2017)
  - Bullous disease (Shingadiya RK et al, 2017)
  - Polyherbal formulation in Ulcerative colitis (Patel KB et al, 2013)
Pathya-apathy in RA- Horse gram supplementation increased the activities of antioxidant enzymes and showed no significant changes in the activities of the inflammatory mediators; black gram supplementation significantly increased activities of the inflammatory mediators and showed a significant decrease in the antioxidant enzymes (Rajagopal V, 2017)
• Using contemporary bioscience to explore Ayurveda is a horizontal which at times is restrictive
• We need more vertical indepth introspection and understanding of our own science if we need to rise higher
Significant contribution by Ayurveda

Six stages of progression

1. Accumulation
2. Aggravation
3. Spread
4. Localisation
5. Expression
6. Exacerbate

Nidana (Cause)
Dosha (V,P,K)
Dushya (Dhatu, Agni, Ama)
Disease

Demonstrate disease pathogenesis enabling early detection and thereby ward progression and also contribute to more effective management
पश्येम शरदः शतम् ॥१॥ जीवेम शरदः शतम् ॥२॥
बुध्येम शरदः शतम् ॥३॥ रोहेम शरदः शतम् ॥४॥
पूषेम शरदः शतम् ॥५॥ भवेम शरदः शतम् ॥६॥
भूयेम शरदः शतम् ॥७॥ भूयसीः शरदः शतात् ॥८॥

(अथर्ववेद, काण्ड १९, सूक्त ६७)

Thank you