

Journal of Coastal Life Medicine

Literature Review on Rheumatoid Arthritis

Received: 20 February 2023, **Revised:** 22 March 2023, **Accepted:** 26 April 2023

Dr. Santosh Reddy¹, Dr. Munjal Thakkar*², Dr Poorav Desai³

¹Professor and HOD in Department of Homoeopathic Pharmacy from Jawaharlal Nehru Homoeopathic Medical college, Parul University, Vadodara, Gujarat

²Professor and HOD in Department of Homoeopathic Materia Medica from Ahmedabad Homoeopathic Medical college, Parul University, Ahmedabad, Gujarat

³Dean and Principal in Jawaharlal Nehru Homoeopathic Medical college, Parul University, Vadodara, Gujarat

Correspondance Email Id:

drmunjalthakkar@drmunjalthakkar.com

Author's Email ID:

santoshaareddy@gmail.com

drpooravdesai@gmail.com

Keywords:

Rheumatoid arthritis, Inflammatory arthritis, Rheumatoid factor, Deformity, Homeopathy, Miasm.

Abbreviations – RA – Rheumatoid arthritis, ACR - American College of Rheumatology, EULAR – European League Against Rheumatism, RF – Rheumatoid factor, ACPA – Anticitrullinated protein antibodies, CRP – C-reactive protein, ESR – Erythrocyte Sedimentation rate, MCP – metacarpophalangeal, PIP – proximal interphalangeal, DAS – Disease activity score.

Abstract

A Chronic autoimmune disease that primarily affects the joints is rheumatoid arthritis (RA). Worldwide, RA affects people of various ethnicities. In the adult population, disease prevalence ranges from 0.5 to 1% globally. Although the prevalence of the illness rises with age, the greatest incidence occurs between the fourth and sixth decades of life. Homoeopathy analyses condition based on causes, nature of pains, aggravating factors, ameliorating factors, parts affected, condition of part and metastatic changes through miasms.

1. Introduction

The term *RHEUMATOID ARTHRITIS* is based on the Greek for watery and inflamed joints.¹

Rheumatoid arthritis was first named by Sir Alfred Baring Garrod in 1858, replacing the terms arthritis deformans and rheumatic gout. Hence, he is credited with distinguishing between gout, osteoarthritis, and rheumatoid arthritis.²

RA is the most common type of chronic inflammatory arthritis and is a *chronic inflammatory disease* (Fig.1) of unknown aetiology characterized by symmetric polyarthritis. RA occurs more commonly in females than in males (2-3:1).³

Journal of Coastal Life Medicine

Distinguishing between Inflammatory and Degenerative joint disease

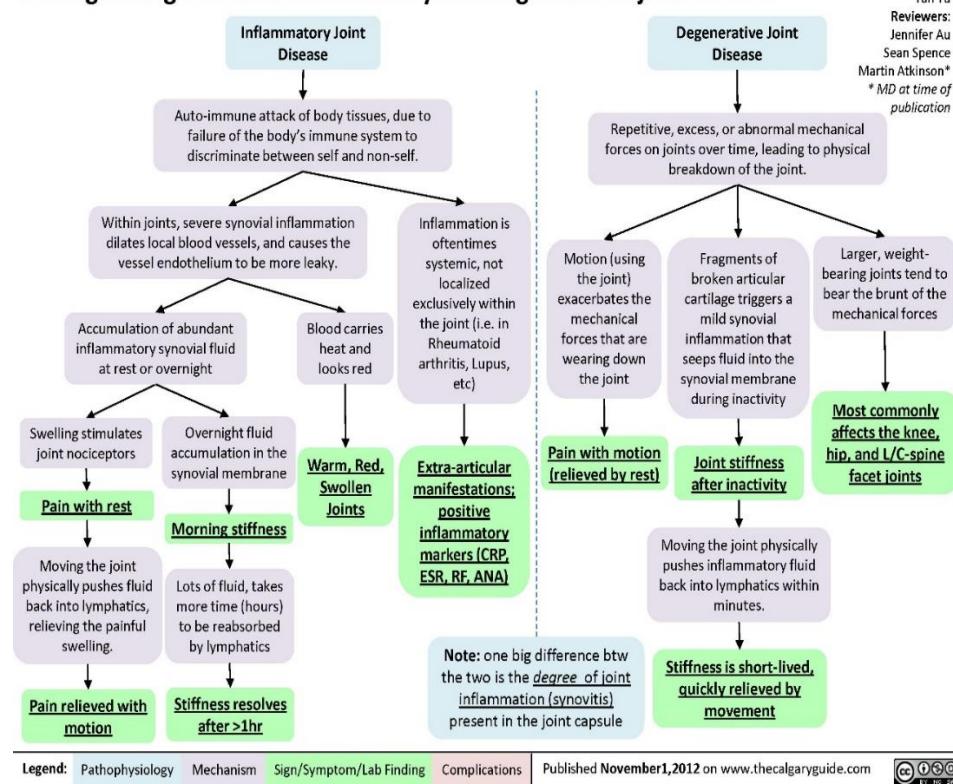


Figure 1: Distinguishing between Inflammatory and Degenerative joint disease.⁴

Although the exact aetiology of rheumatoid arthritis is unknown, it is thought to be a result of a combination of genetic and environmental factors³ (Fig.2)

Rheumatoid Arthritis (RA): Pathogenesis and clinical findings

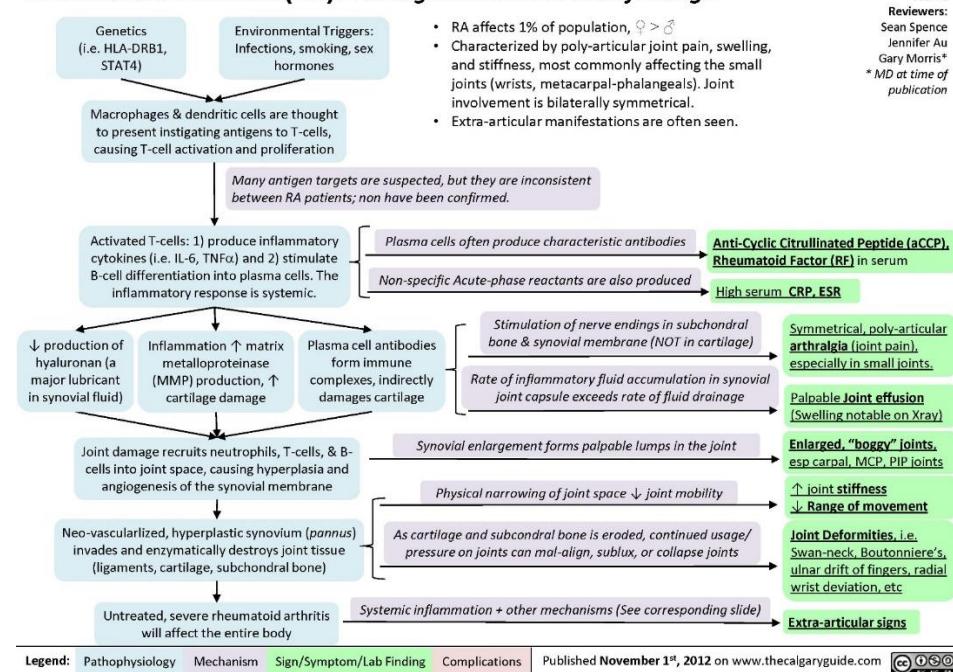


Figure 2: Pathogenesis and clinical findings of RA.⁴

Journal of Coastal Life Medicine

Types of presentations:

- Classical:** Pain, early morning stiffness of small joints of hands and wrist. Symptoms fluctuate in severity from day to day.
- Palindromic:** Intermittent episodes of pain, swelling and redness, usually of a single joint, followed by rapid return to normal after several days.

The **DAS28** is a measure of rheumatoid arthritis disease activity. The term DAS, which stands for "disease activity score," indicates the 28 joints that are assessed.⁵

- Polymyalgic:** Pain and early morning stiffness in shoulders and hips with subsequent synovitis.
- Monoarthritic:** Single joint involvement usually the knee.
- Systemic:** Weight loss, pleurisy and pericarditis but minimal joint involvement.
- Acute onset:** Sudden overnight onset with stiffness and pain.

RA primarily affects the joints (Table.1, Fig.4), but in more than 15–25% of cases, also it affects other organs (Fig.3).

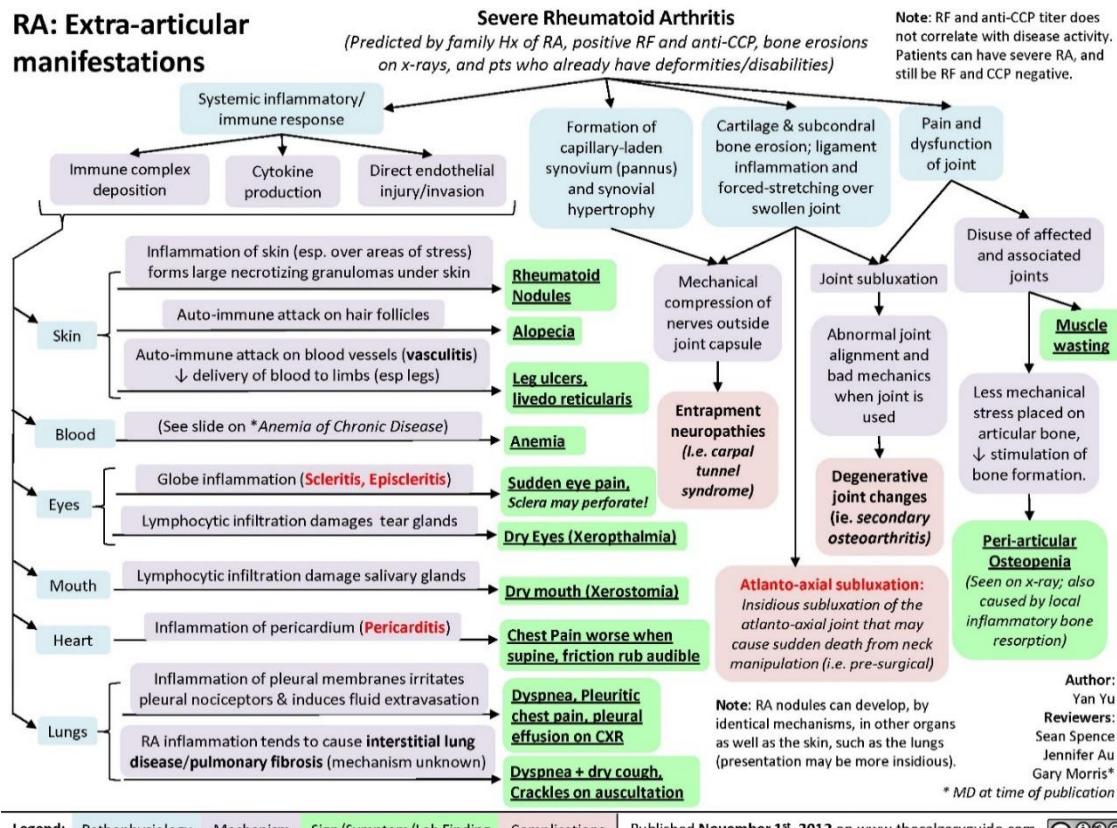
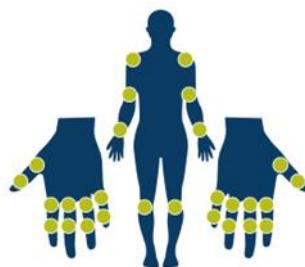


Figure 3: RA, extra articular manifestations.⁴

Journal of Coastal Life Medicine

Joint	Main deformity	Main problems
Fingers	<ul style="list-style-type: none"> • Ulnar deviation – MCP joints. • Boutonniere deformity – Fingers. • Swan neck deformity – Fingers. • Mallet finger – Fingers. • Z deformity – Thumb. 	Functional, cosmetic
Wrists	Subluxation	Functional, Carpal tunnel syndrome, pain.
Elbows	Fixed flexion	Pain, functional.
Shoulders	Superior subluxation	Functional (global loss of movement), pain.
Neck	<ul style="list-style-type: none"> • Atlantoaxial subluxation • Sub axial stepwise deformity 	Cervical myelopathy. Pain.
Knees	Valgus deformity	Pain, instability.
Ankles, subtalar joint	Valgus deformity	Pain, instability.
Midfoot	Pes planus	Pain.
Toes	Valgus, cock up toe deformity	Pain, bursitis, ulcer.
Hips	Fixed flexion	Global loss of function, pain.

Table.1: s

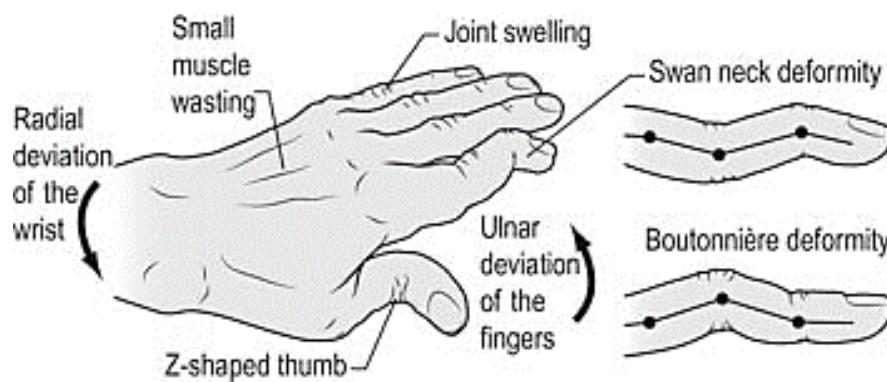


Figure 4: Hand deformity in RA⁷

2. Laboratory Investigations

1. Serological tests:

- A chronic normocytic, normochromic anemia with hematocrit values from 30 to 35% is usual

- Eosinophilia may occur in severe systemic disease. Complete blood count shows moderate anemia and slight leukocytosis.

Journal of Coastal Life Medicine

- The platelet count may be moderately elevated because of chronic inflammation.
- The erythrocyte sedimentation rate is elevated
- The presence of rheumatoid factor is detected in more than 80% of the cases.
- Serum protein electrophoresis shows elevated serum globulin levels.
- Antinuclear antibodies detected by immunofluorescence usually in lower titer, can be found in 30 to 40% of cases.
- Raised C- reactive protein concentration (CRP)

2. Synovial analysis:

Synovial fluid analysis shows increased volume and turbidity, but decreased viscosity and complement (C3 and C4) levels, white blood cell count often exceeds 10,000/mm³.

3. Synovial Biopsy:

It helps in distinguishing different types of inflammatory arthritis. It can be undertaken by blind needle biopsy, arthroscopy or open surgery.

4. Arthroscopy:

Useful for excluding meniscal tears in the knee and it can also be used to establish the extent of erosive cartilage damage.

5. Imaging techniques:

Radiographs are most frequently used to follow the progression of erosive inflammatory disease. Other imaging techniques are arthrography, scintigraphy, ultrasound, CT scanning and MRI occasionally used to establish the extent of local pathology in joints.

X rays, in early stages, show bone demineralization and soft tissue swelling. In later stage there is loss of cartilage and narrowing of joint spaces and finally cartilage and bone destruction and erosion, subluxation and deformities.

RA: Findings on joint x-ray

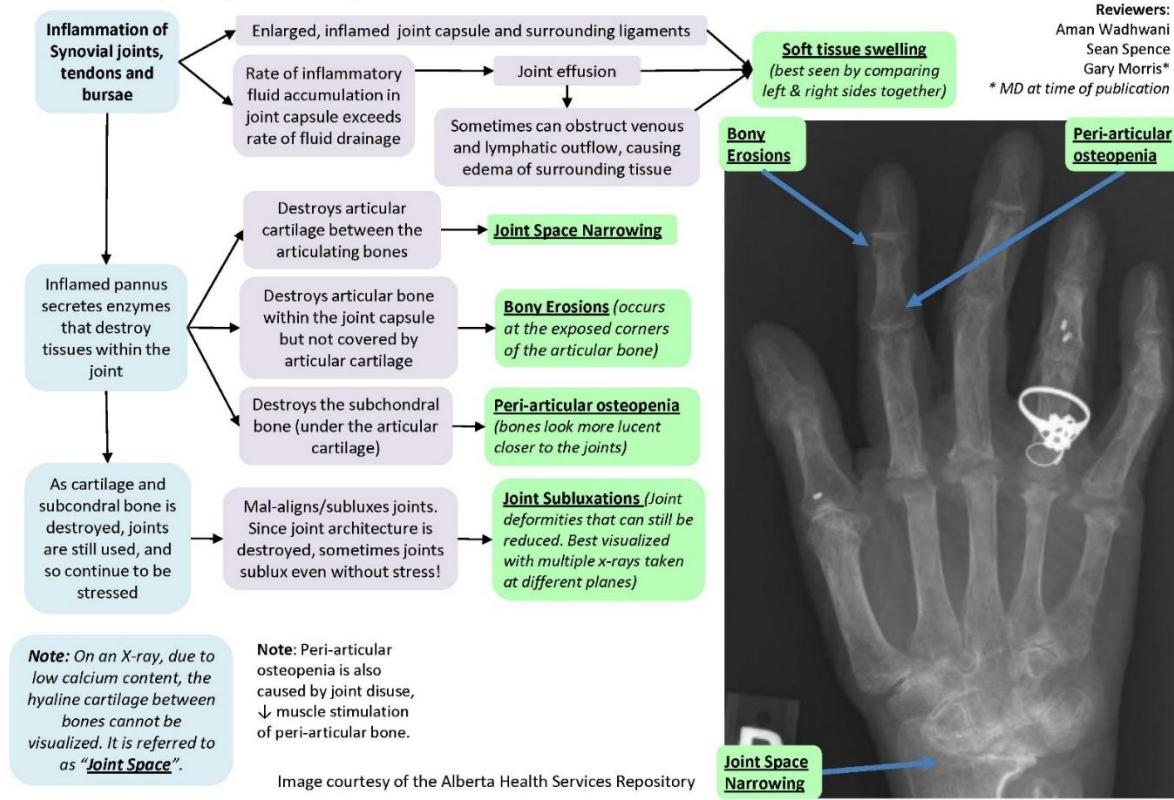


Figure 5: RA, findings on X-ray.⁴

Journal of Coastal Life Medicine

Criteria for RA⁶ – The 1987 criteria (Fig.7) are cumulatively used during a 5-year period of follow-up; the

2010 criteria (Fig.6) are applied shortly after disease onset.

Score	Score
A. Joint involvement (tender/swollen)	C. Acute-phase reactants
1 large joint	Normal CRP & ESR
2-10 large joints	Abnormal CRP & ESR
1-3 small joints (\pm involvement of large joints)	D. Duration of symptoms
4-10 small joints (\pm involvement of large joints)	< 6 weeks
> 10 joints (at least 1 small joint)	\geq 6 weeks
B. Serology	
Negative RF & ACPA	Add score of categories A-D:
Low-positive RF/low-positive ACPA	$\geq 6/10 = \text{definite RA}$
High-positive RF/high-positive ACPA	

Figure 6: 2010 ACR/ EULAR, Classification criteria for RA, newly presenting patients who have at least 1 joint with definite clinical synovitis, not better explained by another disease.

Criterion	Definition
Criteria 1-4 must have been present for ≥ 6 weeks.	
1. Morning stiffness	Morning stiffness in and around the joints, lasting at least an hour before maximal improvement
2. Arthritis of ≥ 3 joint areas	≥ 3 joints areas simultaneously have had synovitis observed by a physician
3. Arthritis of hand joints	At least 1 area swollen in a wrist, MCP, or PIP joint
4. Symmetric arthritis	Simultaneous involvement of the same joint areas on both sides of the body
5. Rheumatoid nodules	Subcutaneous nodules, over bony prominences, extensor surfaces or juxta-articular regions
6. Serum RF	Positive RF
7. Radiographic changes	Radiographic changes typical of RA in posteroanterior hand and wrist radiographs
$\geq 4/7$ Criteria satisfied = RA	

Figure 7: 1987, ACR, Classification criteria for RA.

Miasmatic analysis⁸ -

Key words	Psora Sensitizing miasm	Sycosis Miasm of inco- ordiantion	Syphilis Degenerating miasm	Tubercular response, reactive miasm
General manifestation	-itch, Hypoplasia -Lack, scanty, less and absence	-catarrhal discharge -hyperplasia	-virulent open ulcers -dystrophy	-hemorrhages -alternation of hypo and dysplasia

Journal of Coastal Life Medicine

	-weakness	-hypertrophy exaggeration or excess -restlessness	-destruction and degeneration -destructiveness	-alternation and periodicity -changeableness
Diathesis	-eruptive	-rheumatic and gouty, lithic and uric acid, proliferative	-suppurative or ulcerative	-scrofulous -hemorrhagic
Organs and tissues affected	ectodermal tissues, nervous system, endocrine system, blood vessels, liver and skin	Endodermal tissue, soft tissue. Attacks internal organs, blood and the sexual organs	Mesodermal tissues and bones and the glandular tissues particularly the lymphatics	Glandular tissue. Patient will be poor in flesh and blood
Nature of disease	Deficiency disorder			
Sensation (comparison of extremities symptoms)	-Heat and burning of hands and feet -Neuralgic pains -Sore, bruised, pressure pains are psoric	-Rheumatism, numbness and paralytic weakness of extremities -Stitching, pulsating, shooting, tearing and wandering pains -Soreness, stiffness, lameness -Gouty concretions due to rheumatic affection with pain in the joints or periosteum with inflammatory deposits. -Proliferative variety of inflammation or growth of any tissue	Burning, bursting and tearing sensations	-Cramps in lower extremities -wrist drop weakness or less of power in tendons about joints -Joints easily sprained -Soreness or pain in wrist joints
Modalities of extremities symptoms	<winter, between sunrise and sunset, cold from standing	< approach of storm, or during a thunderstorm, damp humid atmosphere, rainy weather, cold rest, changes in weather, cold rest, changes in	<night, from sunset and sunrise, seaside, sea voyages, thunderstorms, summer and warmth, extremes of temperature, movement,	<night, from thunderstorms, mid greasy and oily fruits, closed room, morning.

Journal of Coastal Life Medicine

		weather, from meat, stooping, bending, beginning to move	perspiration, warmth of bed	
	>summer, from heat, by natural discharges such as urine, sweat, menses. Physiological eliminating processes like diarrhea. Hot application, scratching, appearance of suppressed skin eruption	> moving, slow motion, stretching, rubbing, pressure, dry weather, unnatural discharges, return of suppressed normal discharges	> sunrise to sunset in lukewarm climates, during winter, cold, changes in position and any abnormal discharges	>quiet, rest, warmth, dry weather, open air and in day time > from bleeding

3. Conclusion

A Multidisciplinary team including an orthopaedic surgeon, specialist nurses, clinical assistants, psychiatrists, counsellors, and educators is necessary for the treatment of RA. Homoeopathic medicines have a particular affinity for certain tissues; some have an effect on the synovial membrane while others have an effect on the muscle, tendon, or other tissue. The Goals of RA therapy include pain relief, inflammation reduction, functional capability preservation, resolution of the pathological process, and aid with the healing process.

References

- [1] Wikipedia Contributors. Rheumatoid arthritis [Internet]. Wikipedia. Wikimedia Foundation; 2019. Available from: https://en.wikipedia.org/wiki/Rheumatoid_arthritis
- [2] Mandal A. Rheumatoid Arthritis History [Internet]. News-Medical.net. 2009. Available from: <https://www.news-medical.net/health/Rheumatoid-Arthritis-History.aspx>
- [3] Ankoor shah, E.William St. Clair. Disorders of the joints and adjacent tissues. In: Dan L. Longo, Anthony S. Fauci, Dennis L. Kasper, Stephen L. Hauser, J. Larry Jameson, and Joseph Loscalzo. Harrison's principles of internal medicine. 20e. USA: McGraw-Hill Companies; 2019. 2527-2540.
- [4] Calgary Guide [Internet]. Available from: <https://calgaryguide.ucalgary.ca/>
- [5] DAS 28 - Disease Activity Score Calculator for Rheumatoid Arthritis [Internet]. www.4s-dawn.com. Available from: <https://www.4s-dawn.com//DAS28/>
- [6] HUMPHREYS JH, VERSTAPPEN SMM, SCIRE CA, UHLIG T, FAUTREL B, SOKKA T, et al. How Do We Classify Rheumatoid Arthritis in Established Disease — Can We Apply the 2010 American College of Rheumatology/European League Against Rheumatism Classification Criteria? The Journal of Rheumatology. 2014 Dec;41(12):2347–51.
- [7] Epomedicine. Swan neck deformity vs Boutonniere deformity [Internet]. Epomedicine. 2022. Available from: <https://epomedicine.com/medical-students/swan-neck-deformity-vs-boutonniere-deformity/>
- [8] Banerjee Subrata Kumar, Miasmatic Diagnosis, Practical tips with clinical comparison. 1st edition, 1992, B. Jain Publishers (P) Ltd, New Delhi.