

Case Study of Disease Rheumatoid Arthritis on Geriatric Patients in a Tertiary Care Hospital

Dr D Venkata Ramana¹, Haleema Kauser² D Sneha Bindu³, K.Jhansi Rani⁴

¹Professor, Dept. Of Pharmacy, Holy Mary Institute Of Technology And Science, Telangana, India.

² Student, Dept. Of Pharmacy, Holy Mary Institute Of Technology And Science, Telangana, India.

³Student, Dept. Of Pharmacy, Holy Mary Institute Of Technology And Science, Telangana, India.

⁴ Student, Dept. Of Pharmacy, Holy Mary Institute Of Technology And Science, Telangana, India.

ABSTRACT

A total of 200 subjects were recruited for the research, for the study, 116 men and 84 women were presumably recruited. When gender is a variable, we can say that men (58%) and women (42%) respectively. The age bracket with the highest percentage (23.5%) was 46-60, while the lowest percentage (12%) was 18-30. Majority of the patients population of rheumatoid arthritis was found in elderly patients (i.e., 73 (36.5%)), followed by general issues (i.e., 67 (33.5%)). The patients were noted to have a non healing ulceration on lower limbs, joint were accompanied by high fever. In some patients the urine output were noted to be very low and yellow discoloration was noted. The 10% of the patients were experiencing arthritic pain, the other 15-17% of patients were experiencing back pain and the other 40-50% of patients were experiencing inflammation and joint pains.

Rheumatoid arthritis is a type of autoimmune inflammatory disease characterised in most cases by synovitis. Joint damage that is resulting of arthritis for a long period of time occurs very soon after the disease first arises. Joint which have been compromised will always be deformed which goes on to cause physical problems. For this reason, the right evaluation and treatment should start from the actualization. In 2010, the ACR and EULAR published the criteria for classification of rheumatoid arthritis. They say that persistent arthritis can in the future become destructive. For that purpose these criteria were implemented to distinguish it between other types of arthritis and provided individuals with early opportunity to obtain treatment before their joints become more dysfunctional. DMARDs are drugs used to cure diseases by preventing an immune system fault and preventing the progress of the disease. DMARDs can be divided into three groups of: biologic DMARDs, particular synthetic DMARDs (such as methotrexate), and normal synthetic DMARDs. It is now possible to get the people with rheumatoid arthritis back on their feet through judicious use of these drugs. Research has demonstrated that these sorts of drugs can halt joint structural damage and halt physical problems from progressing. The molecularly targeted drugs such as biologicals and JAK inhibitors have enabled us to use a targeted therapy based on –pathogeometry of processes and manage autoimmune inflammatory diseases that were considered normally incurable. One perspective on this is as a new push. We can expect treatment that will get better and more successful, therapy techniques that aim to cure, and emergence of precise medicine in the future. Young doctors and experts might benefit from familiarising themselves with the work of translation which is exploited to produce new methods for treating diseases, as well as methods for preventing them from coming about.

Keywords: Rheumatoid arthritis, DMARD, NSAID.

I.INTRODUCTION

Medicines are an essential part of healthcare and without them, modern healthcare would not exist. Other than promoting health and saving lives, they also prevent diseases and epidemics. Every person has the fundamental right to obtain medications. But to have the maximum impact, they must be sensible, safe, effective, and economical.

Rheumatoid arthritis is one of the autoimmune diseases which include chronic inflammation, granulation and joint destruction as a diagnosis criterion. It is a chronic systemic inflammatory polyarthritis presenting and a symmetrical form affecting small diarthrodial joints of the hands and feet predominantly[1]. The prevalence of RA is 1% in the world and is increasing; with an increase in population. [2] Modern lifestyles such as wrong food habit, lack of physical activity and incorrect body posture, messes up with the biological clock thus causing rise of various

diseases. [3] The same aetiology causes a disease referred to as Amavata.

Rheumatoid arthritis is an autoimmune and systemic inflammatory disease with primary effect on the synovial joints. Sometimes, the extra-articular manifestations occur among Rheumatoid arthritis patients including rheumatoid vasculitis (RV). The world of rheumatoid vasculitis began to form in the sixties when the patients with rheumatoid arthritis reported vasculitis with prominent clinical expressions [5,6]. The clinical manifestations of ipilimumab-induced vasculitis are not specific and may occur in the form of weakness, weight loss, skin rashes, cutaneous ulcerations, gangrene, peripheral neuropathy or viscera infarctions. There is a manifestation of the skin in approximately 90% of rheumatoid arthritis patients with rheumatoid vasculitis. [7,8]

Inflammatory process is characterised with inflammatory cell infiltration to joints causing proliferation of synovocytes destructing cartilage and bone.

Non-steroidal anti inflammatory drugs (NSAIDs) are prescribed when the pain and inflammatory responses of rheumatoid arthritis present themselves. Disease modifying anti-rheumatic drugs (DMARDs) are used to slow down the disease's progression. **) Reduction of immune responses in rheumatoid arthritis is caused by the action of DMARDs.**

DMARDs and NSAIDs might have higher success in terms of RA treatment, however, there is a lack of such agents that act with several mechanisms of action. Therefore, treatment of rheumatoid arthritis consists in using of NSAIDs and DMARDs [1]. Without the benefit of the chronicity of the rheumatoid arthritis in the patients and the adverse effects of the NSAIDs and DMARDs the arthritic patients will seek for the alternative drugs that are effective and less toxic and lower pill burden. Thus, they prefer the complementary and alternative medicines.

Clinically, the diagnosis of RA can be distinguished from osteoarthritis (OA) because the affected areas in RA are the proximal interphalangeal (PIP) and metacarpophalangeal (MP) joints; OA usually involves the distal interphalangeal (DIP) joint (Fig. 1). OA is the most common form of arthritis and is not an autoimmune disease but rather wear and tear. It does not affect the lungs, heart or immune system. Furthermore, OA usually affects only one side of the body unlike the symmetrical nature of RA. Another distinguishing factor is that RA patients experience morning stiffness for at least ≥ 1 h. Patients with OA may experience morning stiffness, but this usually subsides or reduces within 20–30 min.

Autoimmune diseases, such as rheumatoid arthritis (RA), make their victims feel pain, swelling, and stiffness in their joints because they attack their walls. If you are affected by this disease, then you are facing the symptoms of diseases like your fingers, hands, wrists your knees, ankles, feet your toes are. RA has similar joints affected on both sides of the body, unlike other forms of arthritis.

When inflammation gets out of hand, it hurts normal "shock absorber" cartilage in your joints. If this continues for a long time it can alter the shape of the joints. In end, your bone degrades. This can make your joint(s) fuse together.

Some of your immune cells (the body's guard against getting sick) help with this. Despite the fact that these chemicals are formed in your joints, these involve different parts of your body and are manifested by symptoms.

Stages of rheumatoid arthritis

There are four different phases of rheumatoid arthritis:

Stage 1 Rheumatoid Arthritis: SYNOVITIS

At the early stages, people may have Mild Pain and Stiffness. The pain may be felt in the morning and after some movement it can disappear. The synovial lining becomes inflamed. There is a slight swelling inside the joint. Nevertheless, the swelling may not be apparent on the skin surface. Hands and feet are the primary affected joints. At this stage, only one or two joints can be involved. The bones are not affected. It is not easy for a person to determine whether he or she is suffering from rheumatoid arthritis at this stage.

Stage 2 Rheumatoid Arthritis: PANNUS

Stage 2 is referred to as the moderate stage. If the disease reaches the second stage, the number of antibodies in the blood increases and joints may start to exhibit Clear Swelling and Redness. The symptoms manifest at this stage and it is easy to diagnose rheumatoid arthritis. The Synovium is Inflamed, and joint cartilage and Bones start to be

damaged at this stage. Cartilage is the tissue that shields or covers the ends of the bones. Cartilage damage can lead to pain and it can be hard for the patient to move. The joints may be stiff and it may be hard to move them. In particular, after some rest, you may find it hard to move your joints again. The other organs of the body also start to be affected. Your lungs, heart, and eyes may indicate illness.

Stage 3 Rheumatoid Arthritis: FIBROUS ANKYLOSIS

This is the point where the disease becomes extremely serious. The Joint Cartilage has been damaged and the bone also begins to be affected. Because cartilage is the soft cushion between the joints, its absence will mean that the joints will begin rubbing against each other. The Bones start to become Deformed and the shape of the joint or bone can alter. For instance, the fingers can be twisted or the knuckles can be thickened. The joint tendons can also be compressed or ruptured. The ruptured tendons may not heal, but it can be prevented if it is taken care of in time. These deformed joints can also influence your veins or squeeze your veins and it can lead to nerve pain as well. There can be severe pain and swelling. The muscles are also weakened at this stage. The patient may find it very hard to move the affected joints.

Stage 4 Rheumatoid Arthritis: BONY ANKYLOSIS

This is the final stage of rheumatoid arthritis patients. By this time, the swelling has subsided. The patient can feel a little pain, but the movement is completely gone. The bones will fuse together and at this point, it will not be possible to move the affected joint.

However, you do not need to wait for your bones to fuse before seeing a doctor. Rheumatoid Arthritis can be managed in the early stages. Ayurvedic treatment is the best way to handle this disorder.

Ayurveda believes that it is the outcome of doshas imbalance in the body. There are three major doshas in the body, Vata, Pitta, and Kapha. In rheumatoid arthritis, vata dosha imbalance leads to pain in the body, and pitta dosha imbalance leads to a burning sensation and reddish discoloration. On the other hand, Kapha dosha imbalance causes stiffness and heaviness in the body.

Ayurvedic treatment includes a number of changes in diet and lifestyle. It is concerned with the elimination of the Ama or toxins from the body. Proper care of your gut health can help you control rheumatoid arthritis in its early stages. It will stop undigested food particles and toxins from spreading in your body. Varn your diet and lifestyle can be beneficial in controlling Rheumatoid Arthritis.

II. REVIEW OF LITERATURE

1. Wei Shi, Xinyu Liang, Huafeng Zhang, Hui Li, Burden of rheumatoid arthritis in India from 1990 to 2021: insights from the Global Burden of Disease Database, *Frontiers in Medicine*, 10.3389/fmed.2025.1526218, **12**, (2025).
2. Shriya Karmarkar, Trinetta Fernandes, Zainab Choonia, Sankalp Gharat, Sujata Sawarkar, Navigating rheumatoid arthritis: insights into ligand-anchored nanoparticle strategies for anti-inflammatory therapy and relief, *RSC Pharmaceuticals*, 10.1039/D4PM00133H, (2025).
3. Puvaneswari Kanagaraj, Impact of self-management training on quality of life, medication adherence, and self-efficacy among rheumatoid arthritis patients, *International Journal of Orthopaedic and Trauma Nursing*, 10.1016/j.ijotn.2025.101178, **57**, (101178), (2025).
4. Cankatika Choudhury, Akhil Sahib, Partha Karmakar, Suvrendu Kar, Correlation of Serum Vitamin D and High-Density Lipoprotein (HDL) Cholesterol Levels With Disease Activity in Rheumatoid Arthritis: A Single-Center Experience From Eastern India, *Cureus*, 10.7759/cureus.69333, 2024.
5. AISHWARYA MALODE, R N YADAV, GIRDHAR GOPAL GOYAL, GUNJA JAIN, AJAY MATHUR, LAXMIKANT GOYAL, PULMONARY FUNCTION IN RHEUMATOID
6. ARTHRITIS: A CROSS-SECTIONAL STUDY, *International Journal of Current Pharmaceutical Research*, 10.22159/ijcpr.2024v16i2.4057, (120-123), 2024.
7. Jyoti Prabha, Mohit Kumar, Devesh Kumar, Shruti Chopra, Amit Bhatia, Nano-platform Strategies of Herbal Components for the Management of Rheumatoid Arthritis: A Review on the Battle for Next-Generation Formulations, *Current Drug Delivery*, 10.2174/1567201821666230825102748, **21**, 8, (1082-1105), (2024).

8. Mohammad Raeesh Shekh, Nasir Ahmed and Vivek Kumar examine the prevalence of rheumatoid arthritis in India and the potential for medicinal plants to treat this condition. It appeared on April 24, 2015 in Current Rheumatology Reviews and has DOI, 10.2174/0115733971268416231116184056.
9. In this paper, S. Kavinila, A. Annamalai, P. Muthusamy, and R. S. David Paul Raj discuss the use of native medicinal plants to treat arthritis.
10. Journal of Natural Remedies, 10.18311/jnr/2024/35213, (1383–1401), A closer look at the Irula Tribes of Tamil Nadu (2024).
11. Muhammad Shaham N, Partha Pratim Das, Ijasul Haque M, Manish Khanna, A systematic review on the impact of interventions on gene expression profiles of rheumatoid arthritis patients, Indian Journal of Orthopaedics Surgery, 10.18231/j.ijos.2024.015, 10, 2, (75-89), (2024).
12. Ojasvini Bali, Sumeet Singla, Cost of Illness and Out-of-pocket Expenditure of Ankylosing Spondylitis and Rheumatoid Arthritis at a Tertiary Care Hospital in North India Using Conventional Disease-modifying Antirheumatic Drugs, Indian Journal of Rheumatology, 10.1177/09733698241239709, 19, 3, (170-183), (2024).
13. Devika Vinod, Sandhya Sadanandan, Rejithamol Rajamani, Peptide-based Electrochemical Biosensors for the Detection of Disease Biomarkers, Biosensors and Bioelectronics. X, 10.1016/j.biosx.2024.100531, (100531), (2024).
14. Vikas Shukla, undefined Umesh, Ayushi Purohit, Berberine-Loaded Nanoparticles Combat Oxidative and Nitrosative Stress to Reprogram Macrophages in Rheumatoid Arthritis, BioNanoScience, 10.1007/s12668-024-01637-0, 15, 1, 2024.
15. Jhasaketan Meher, Suprava Patel, Rachita Nanda, Md Sabah Siddiqui, Association of Serum IL-17 and IL-23 Cytokines With Disease Activity and Various Parameters of Rheumatoid Arthritis in Indian Patients, Cureus, 10.7759/cureus.49654, 2023.
16. Tania Naidoo, Lai-Ling Winchow, Mohammed Tikly, Nimmisha Govind, Osteoporosis in Black South Africans With Rheumatoid Arthritis, Cureus, 10.7759/cureus.47743, 2023.
17. Bimlesh Dhar Pandey, Venkataraman Krishnamurthy, Uma Kumar, Sundeep Kumar Upadhyaya, Neeraj Jain, Manish Dugar, Sagar Panchal, Nishita Shah, Tanuja Korde, Jitendra Dixit, Golimumab in Rheumatoid Arthritis: Safety and Efficacy. A Prospective, Multicenter, Real-World Study from India, Indian Journal of Rheumatology, 10.4103/injr.injr_210_22, 18, 4, (282-288), (2023).
18. Komal Chhikara, Shubham Gupta, Sakshi Saharawat, Shruti Sarkar, Arnab Chanda, Design, Manufacturing, and Trial of a 3D Printed Customized Finger Splint for Patients with Rheumatoid Arthritis, Rheumato, 10.3390/rheumato3010004, 3, 1, (51-62), (2023).
19. Aanchal Verma, Nandini Dubey, Anant Agrawal, Ahsas Goyal, Dietary, Herbal and Nutritional Interventions for Managing Rheumatoid Arthritis: A Review, Current Pharmaceutical Biotechnology, 10.2174/1389201024666230807155529, 25, 2, (125-132), (2023).
20. Raghuraj Singh, Krishna Jadhav, Kalpesh Vaghasiya, Eupa Ray, Rahul Shukla, Rahul Kumar Verma, New Generation Smart Drug Delivery Systems for Rheumatoid Arthritis, Current Pharmaceutical Design, 10.2174/1381612829666230406102935, 29, 13, (984-1001), (2023).

III.AIMS AND OBJECTIVES

AIM:

To assess the geriatric patients suffering from rheumatoid arthritis in a tertiary care hospital, Secunderabad.

OBJECTIVES:

PRIMARY OBJECTIVES:

- To assess the geriatric patient suffering from a
- To estimate the impact on health of the patients and medicine to be used .

SECONDARY OBJECTIVES:

- To observe the management of several conditions with Rheumatoid arthritis .
- To assess the negative impacts of using Rheumatoid arthritis .
- To evaluate safety & efficacy of the drugs used for geriatric patients .
- To determine effectiveness of anti rheumatic drugs .

IV. METHODOLOGY

Study design and study period:

- It is prospective, observational study to be conducted in KIMS – CUDDLES, Secunderabad.
- The study is to last for 6 months.

Source of data:

Data would be collected from treatment-charts, case sheets and laboratory data of subjects under study.

Sample size:

Estimated sample size is roughly 200 patients.

Inclusion criteria:

The study is whether the subject fulfills following criteria.

- Age (about 18 years).
- Gender (both and female).
- Inpatients and Outpatients.
- Patients with other comorbidities.

Exclusion criteria:

- Pediatrics.
- Patients who would be placed unwilling to provide the consent.
- Pregnant women.
- Emergency cases.
- Lactating women.

Method of collection of data:

Study participants would be provided with an explanation regarding study details and then they would be given an informed consent. Data collection and DRPs were determined using the following.

Annexure – I (Patient Data Collection Form) Annexure –II (informed consent form) Annexure- III (Adverse Drug Reaction form). STUDY PROCEDURE:

The methodology of the study has been approved by the ethics committee of Sunshine Cuddle, 200 cases of both sexes have been included into our research. Forms that were used to collect patient data were used to collect all the information necessary for our investigation. Data collection was carried out during the first two months in the six-month research period. In the course of the data-collecting procedure, we interviewed the patients who fulfilled the criteria for our research and made sure that they understood the specifics of it prior to receiving their consent. A general medicine department is provided for. Their prior medical history. Two months were spent analyzing information after data collection. Excel was the software used to create the graphs, tables and other visual presentation of the statistical analysis. The research was conducted in Sunshine Hospital. The thesis was written during the last two months of the study session.

Statistical analysis:

This research will use descriptive statistics. All patient data that has been recruited will be stored and analyzed in a Microsoft Office Excel spreadsheet.

V. RESULTS

After six months 200 cases were collected in the KIMS CUDDLES Hospital in Secunderabad the collected information was used to make the following assessment.

Table 1: DISTRIBUTION BASED ON GENDER

GENDER	NO OF PATIENTS	PERCENTAGE (%)
FEMALES	116	58
MALES	84	42
TOTAL	200	100

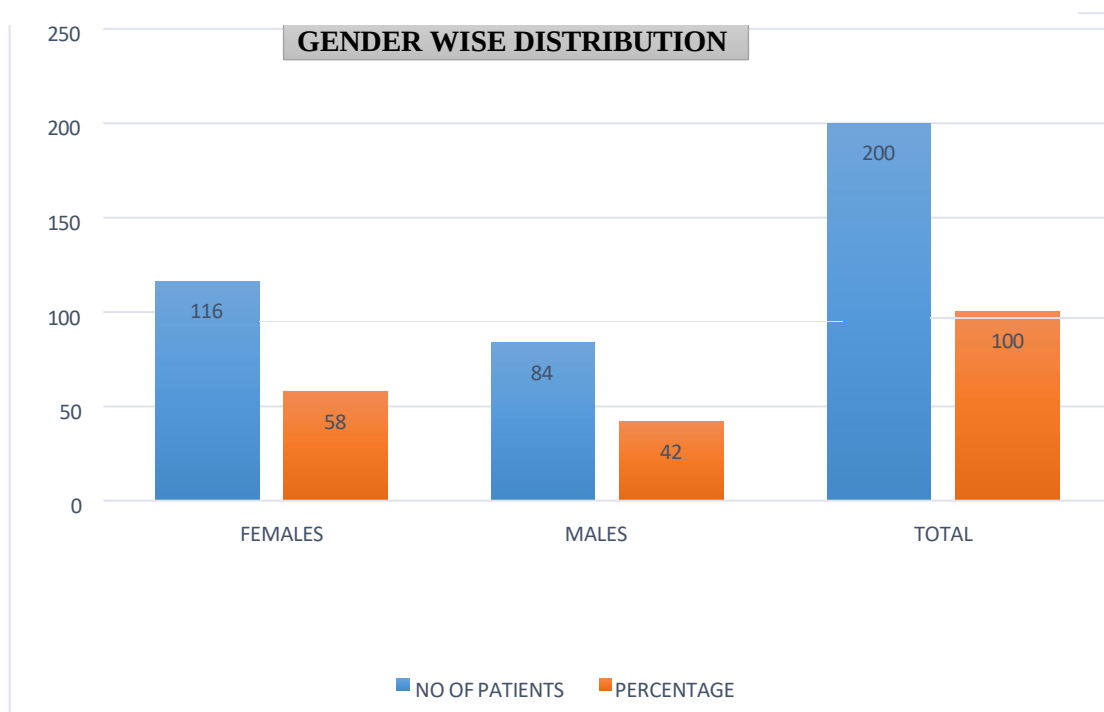


Figure 1: GENDER WISE DISTRIBUTION

Probably, 200 participants, 116 males and 84 women, were selected for the study. When gender is taken as a variable, we can say that women (58%) are more likely to be treated with rheumatoid arthritis treatment than men (42%) if they have multiple illnesses related to their muscle pains and other organs.

Table 2: DISTRIBUTION BASED ON AGE

AGE (YEARS)	NO OF PATIENTS	PERCENTAGE
18-30, YEARS	24	12

41-45, YEARS	44	22
46-60 YEARS	47	23.5
61-70, YEARS	39	19.5
71-90, YEARS	46	23
TOTAL	200	100

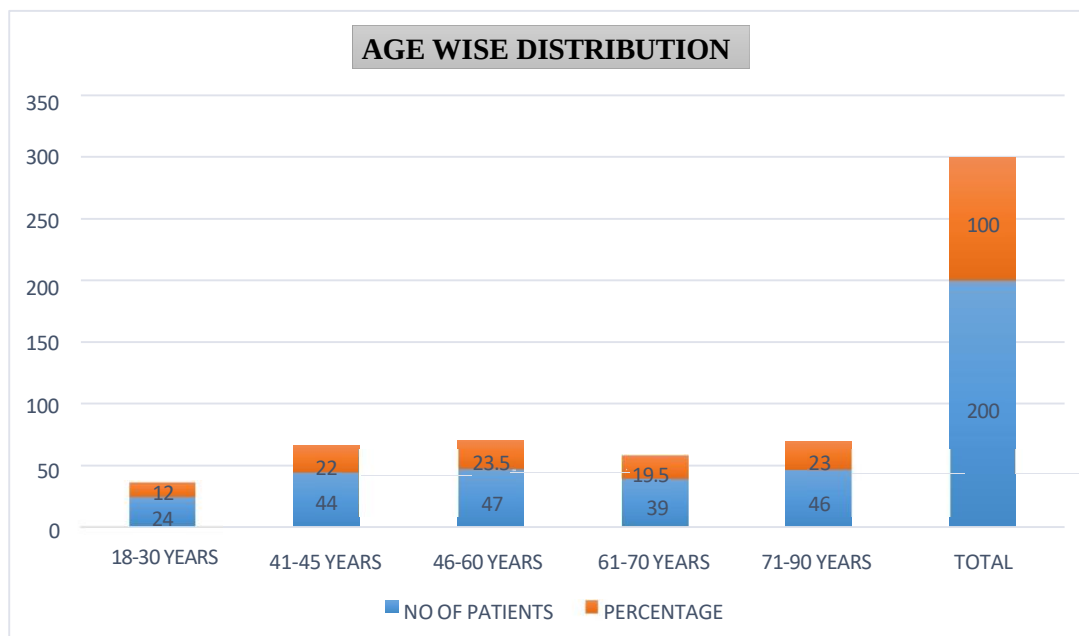


Figure 2: AGE WISE DISTRIBUTION

Most of the 200 hospitalized patients with other problems were treated with muscle dystrophy and rheumatoid arthritis treatment. Most (23.5%) of them were aged between 46 and 60 years, while the least (12%) were aged between 18 and 30 years.

Table 3: DISTRIBUTION BASED ON COMORBIDITIES

COMORBIDITIES	NO OF PATIENTS	PERCENTAGE
a) CVD	36	18
b) MENTAL HEALTH CONDITION	25	12.5
c) CANCER	4	2
d) GIT	17	8.5

e) PULMONARY CONDITION	1	0.5
f) OSTEOPOROSIS	30	15
g) CVD+GIT	8	4
h) CHRONIC LIVER DISEASES	2	1
i) COPD+ OSTEOPOROSIS	2	1
j) NONE	75	37.5
k) TOTAL	200	100

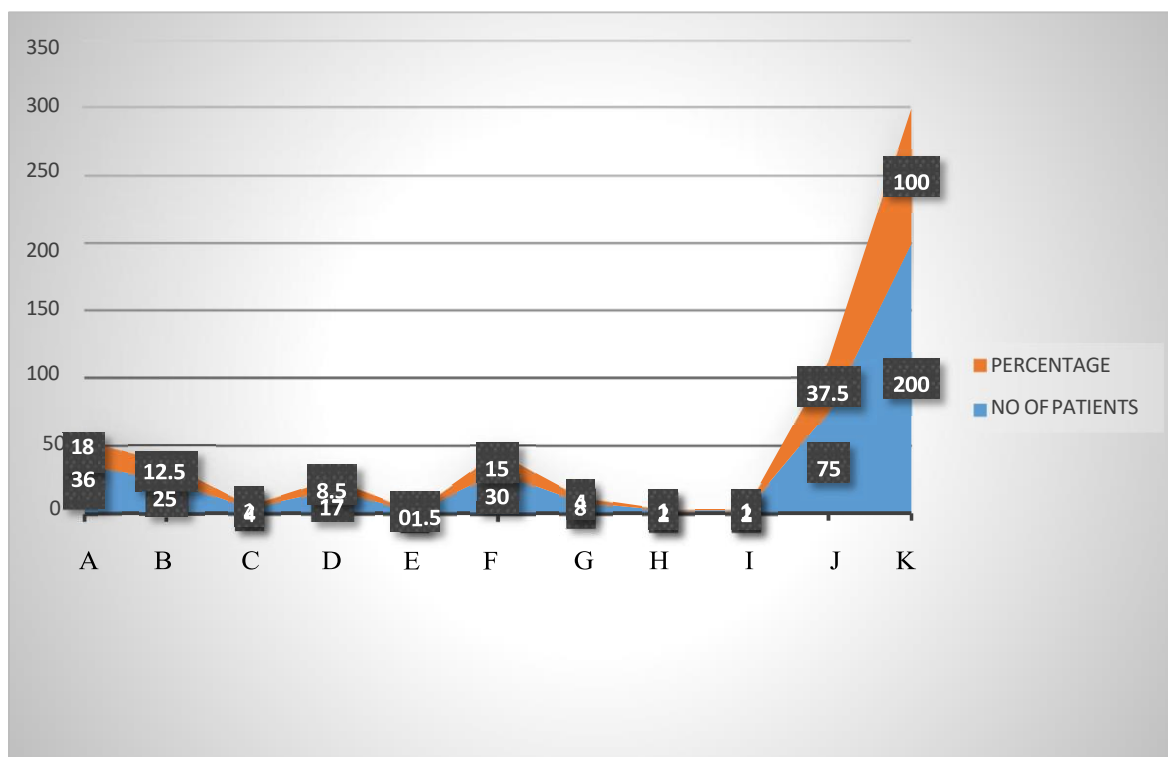


Figure 3: COMORBIDITIES WISE DISTRIBUTION

It was said that 200 people were selected to participate in the investigation. The disorders that affect the patients are

associated with 18.5% and 12.5% respectively with patient mental health condition. The COPD and osteoporosis ,chronic liver disease rates among the patients were the lowest— 6% and 7% respectively.

Table 4: DISTRIBUTION BASED ON DIAGNOSTIC TEST

DIAGNOSTIC TEST	NO OF PATIENTS	PERCENTAGE
ANTI CCP TEST	99	49.5
RF FACTOR	86	43
INFLAMMATION MARKERS	15	7.5
TOTAL	200	100

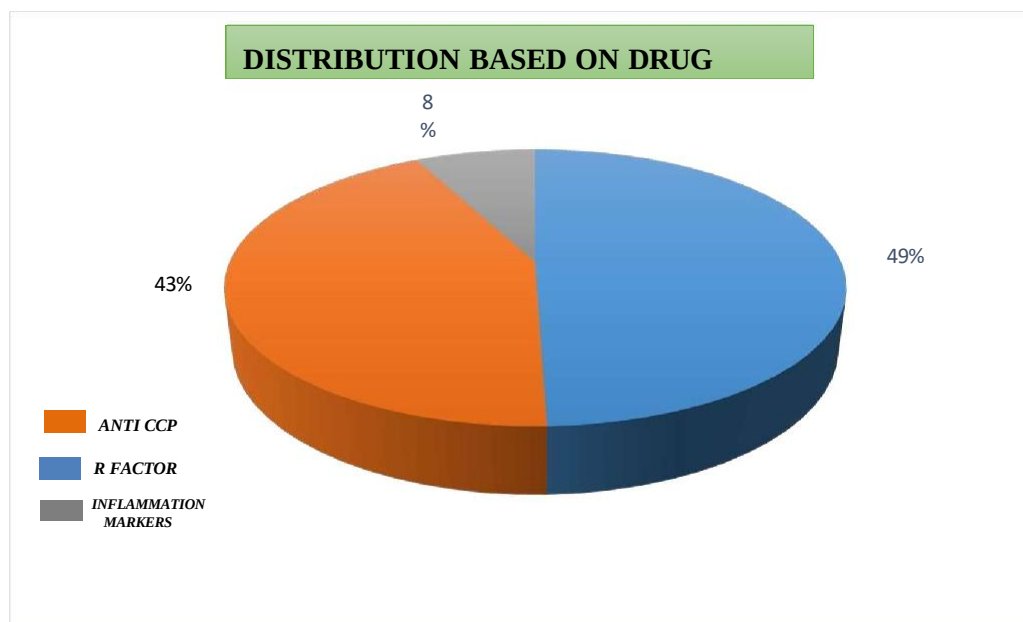


Figure 4: DRUG CLASS WISE DISTRIBUTION

Table 5: DISTRIBUTION BASED ON DEPARTMENT

DEPARTMENT	Column3	Column2
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GENERAL-MEDICINE	67	33.5
SURGICAL GASTRO & LIVER TRANSPLANT	73	36.5
GASTROENTEROLOGY	20	10
ORTHOPEDICS	25	12.5
ONCOLOGY	1	0.5
PULMONOLOGY	5	2.5
NEUROLOGY	5	2.5
NEPHROLOGY	3	1.5
UROLOGY	1	0.5
TOTAL	200	100

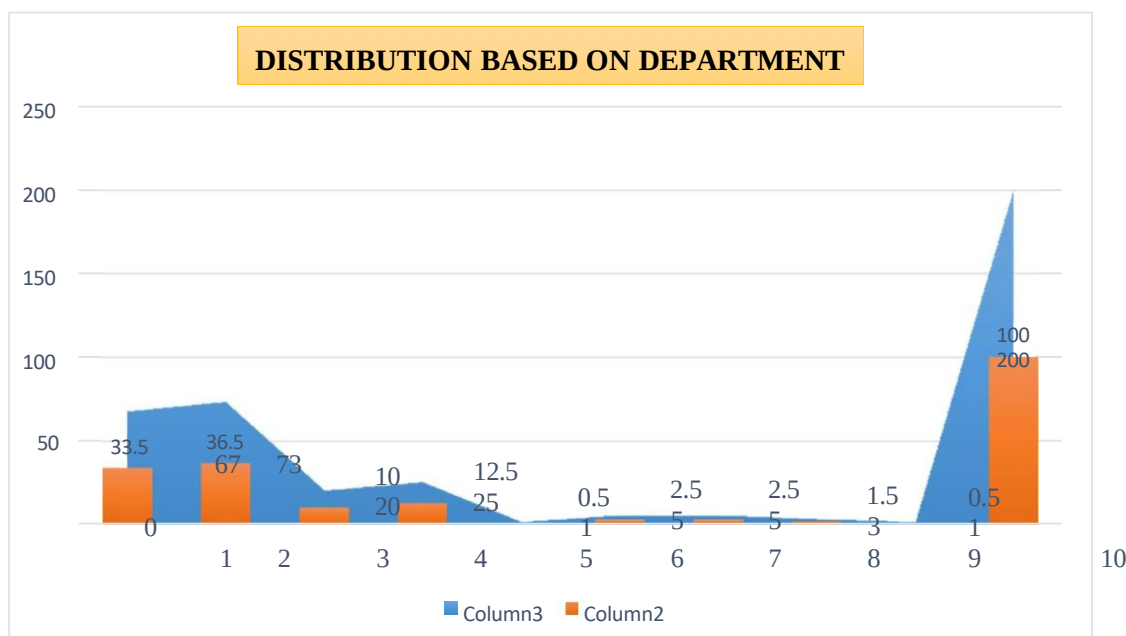


Figure 5: BASED ON DEPARTMENT

Surgery in gastroenterology and liver transplants was the most frequently encountered cause of rheumatic arthritis 200 samples – 73 (36.5%) patients% had it. After reducing the number of employees further, general medicine came in second position with 67 (33.5%) patients having it. Then one finds gastroenterology (10%) and orthopaedics (12.5%) and so forth.

Table 6: DISTRIBUTION BASED ON FREQUENCY OF DRUG

FREQUENCY	NO OF PATIENTS	PERCENTAGE
OD (ONCE IN A DAY)	99	49.5
BD (TWICE IN A DAY)	25	12.5
TID (THRICE IN A DAY)	47	23.5
OD+TID	14	7
BD+OD	9	4.5
HS (BEDTIME)	6	3
TOTAL	200	100

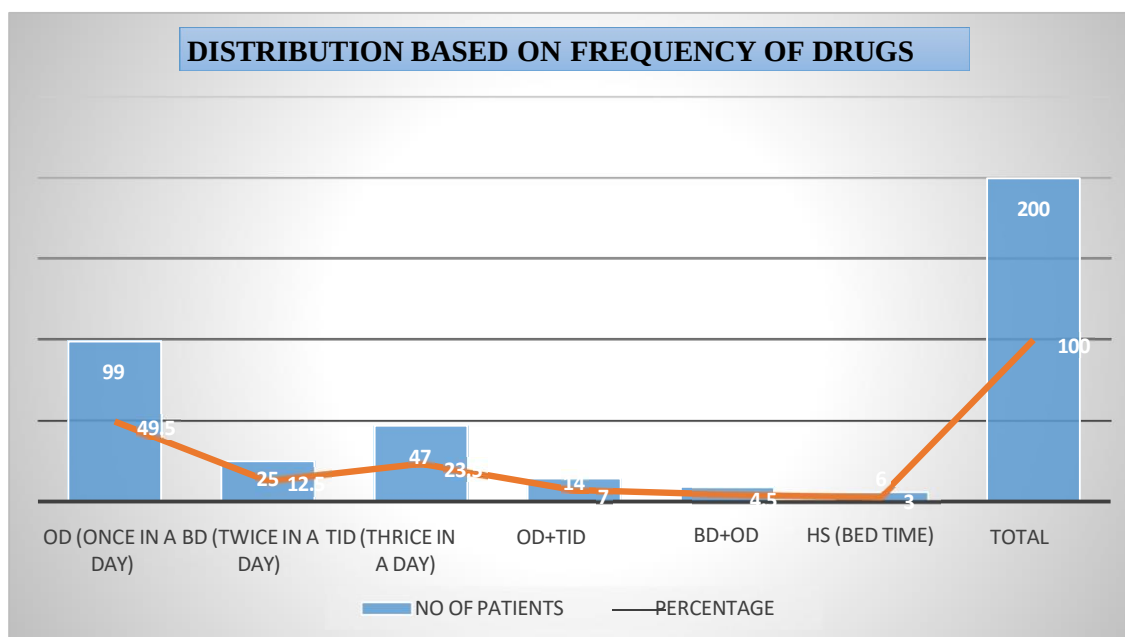


Figure 6: FREQUENCY OF DRUGS

Based on the above table and graph it is clear that the treatment with the anti rheumatoid drugs had a higher percentage of OD rates (49.5%) than HS (bedtime) frequencies (3%).

Table 7: DISTRIBUTION BASED ON DOSAGE FORM

DOSAGE FORM	NO OF PATIENTS	PERCENTAGE
TABLET	85	42.5

CAPSULE	69	34.5
INJECTION		8
SACHET	2	1
TABLET+INJECTION	11	5.5
TABLET+CAPSULE	15	7.5
TABLET+CAPSULE+INJECTION	2	1
TOTAL	200	100

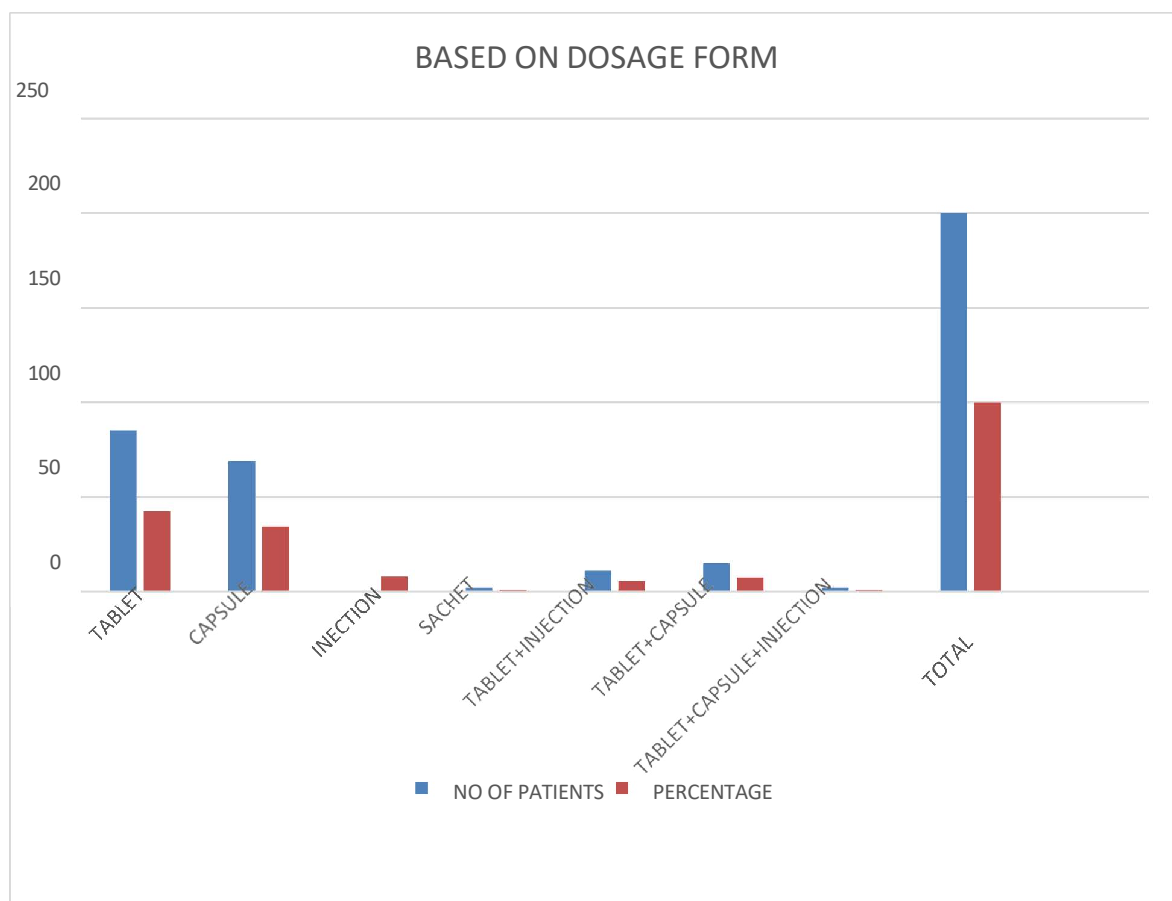


Figure 7: BASED ON DOSAGE FORM

From a study of 200 patients, the most frequent dose form is pill i: Sachets (i.e. 2) are the least used medications (2%).

Table 8: DISTRIBUTION BASED ON DURATION OF THERAPY

DURATION (IN DAYS)	NO.OF PATIENTS	PERCENTAGE (%)
2 DAYS	53	26.5
3DAYS	84	42
4DAYS	42	21
5 DAYS	14	7
6 DAYS	7	3.5
TOTAL	200	100

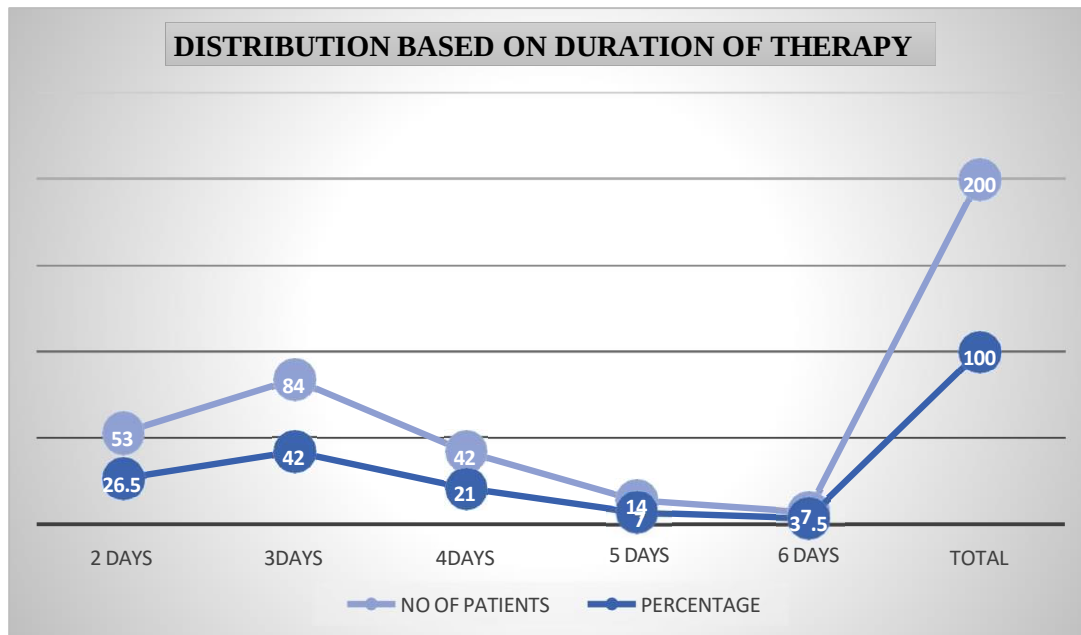


Figure 8: BASED ON DURATION OF THERAPY

Reports say that 200 people were chosen to take part in the study. When categorised by length of time, rheumatoid arthritis patients have a high percentage (26.5%) after two days and a low percentage (3.5%) after six days.

Table 9: DISTRIBUTION BASED ON WEIGHT

WEIGHT (IN KGS)	NO:OF PATIENTS	PERCENTAGE(%)
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30-40 KGS	3	1.5
41-60 KGS	118	59
61-80 KGS	64	32
81-100 KGS	15	7.5
TOTAL	200	100

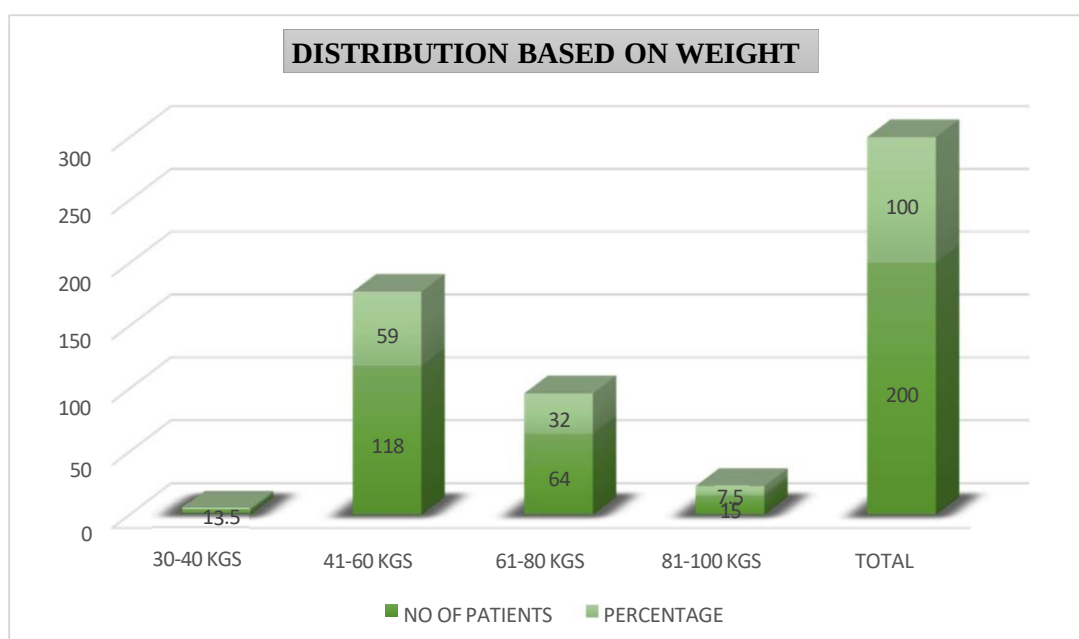


Figure 9: BASED ON WEIGHT

Based on our study of 200 cases, rheumatoid arthritis is most common in people who weigh between 41 and 60 kg (+59%) and least common in people who weigh 30 to 40 kg (+1.5%).

Table 10: DISTRIBUTION BASED ON PRESCRIPTION WISE

PRESCRIPTION	NO OF PATIENTS	PERCENTAGE
BRAND	194	97
GENERIC	6	3
TOTAL	200	100

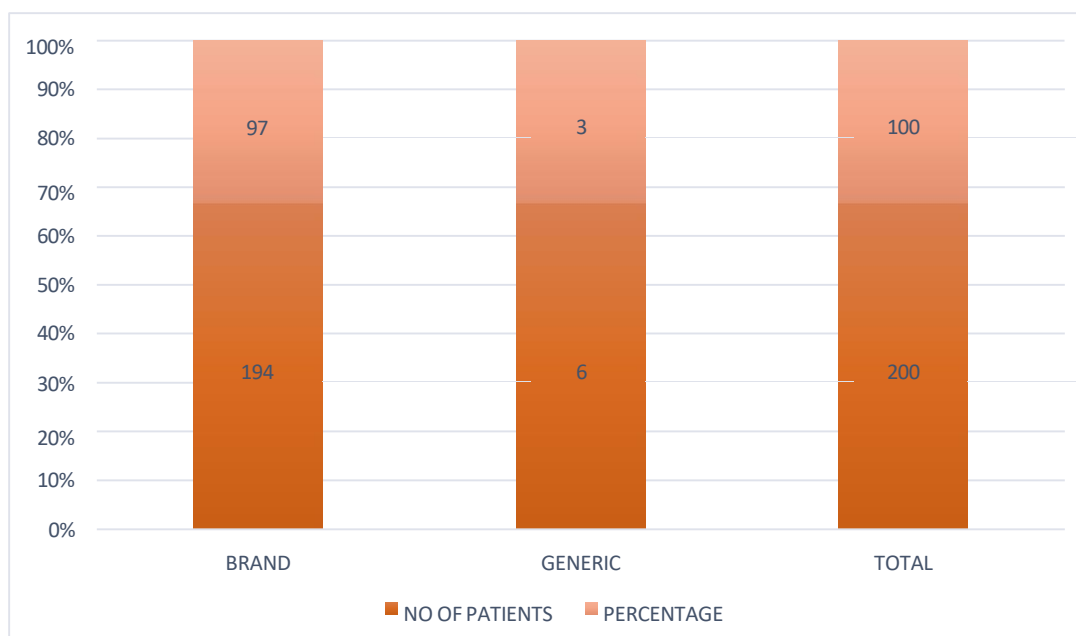


Figure 10: BASED ON PRESCRIPTION WISE

Based on information from 200 patients, the therapeutic prescriptions were made in accordance of the type of prescription, named drugs received 97% prescriptions and generic drugs received an insignificant 3%.

Table 11: DISTRIBUTION BASED ON COMPLAINTS

COMPLAINTS	NO OF PATIENTS	PERCENTAGE
Cartilage damage	26	13
Inflammation	75	37.5
Fatigue	19	9.5
Heart disease	18	9
Skin conditions	22	11
Muscular dystrophy	40	20
TOTAL	200	100

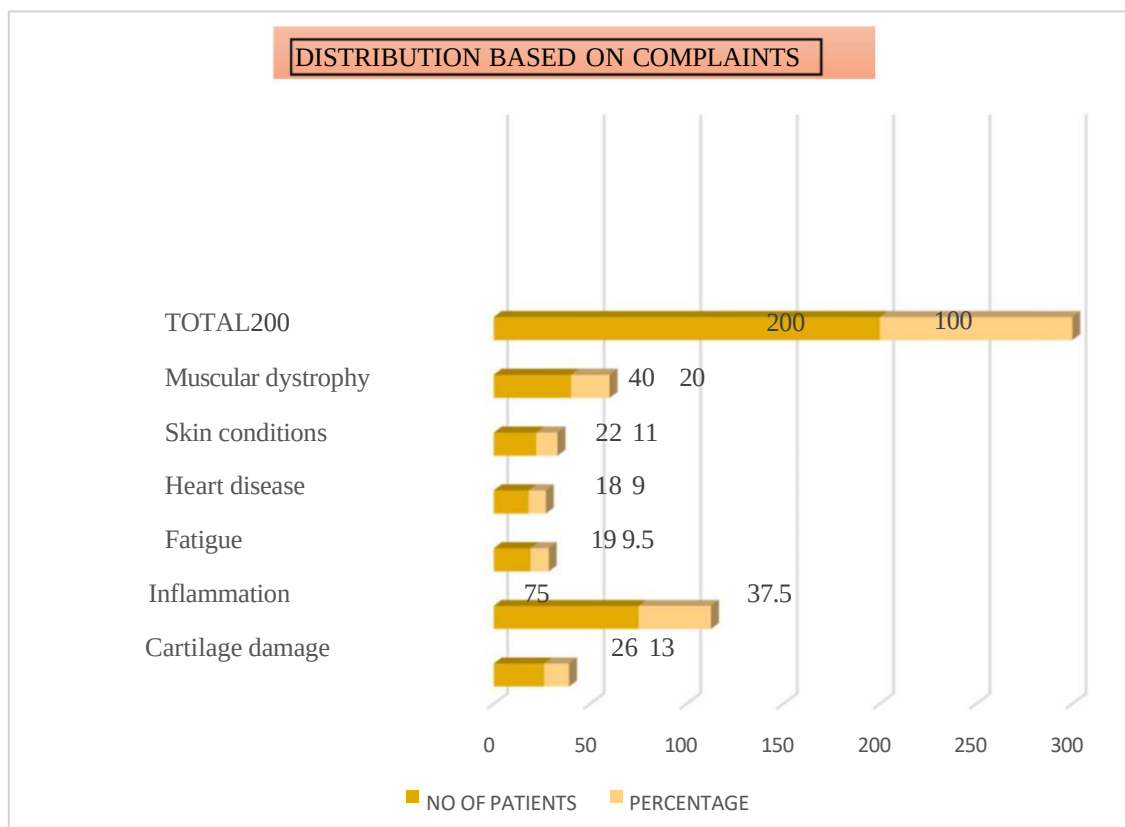


Figure 11: BASED OF COMPLAINTS

Since we studied the information of 200 cases. 9% of patients admitted reported they were tired but most admitted patients reported they were infl.

Table 12: DISTRIBUTION DETERMINED BY SPECIFIC DRUGS

DRUGS	NO OF PATIENTS	PERCENTAGE
NSAID'S	51	63.75
OPOID ANALGESIC	14	17.5
DMARDS	9	11.25
GOLD SALTS	6	7.5
TOTAL	80	100

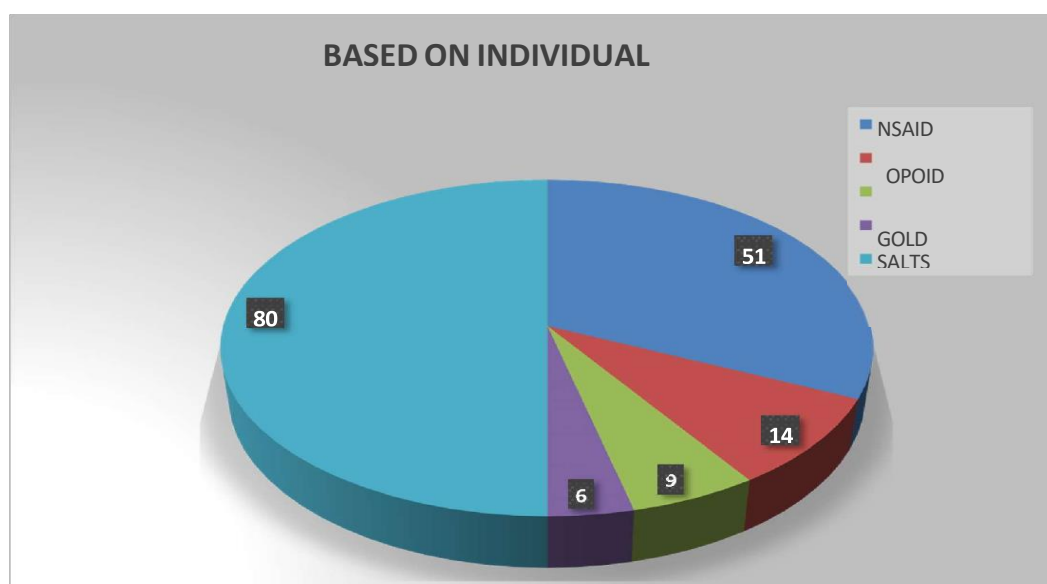


Figure 12: INDIVIDUAL PROKINETIC DRUGS

The study looked at 200 carefully chosen people. It found that NSAIDS were used by 63% more people than other anti-inflammatory drugs like opioid analgesics, demagogues, and gold salts.

DISCUSSION

- This is a prospective observational study conducted to assess the pattern of and proper utilisation of ANTI RHEUMATIC DRUG by the patient in the tertiary care set up.
- We are absolutely satisfied with review interaction and guidelines because the review indicated that the examination followed measures of incorporation and prohibition.
- The present investigation was carried out on the General Medication branch of the KIMS – SUNSHINE HOSPITAL in Secunderabad.
- Availability of information ensures that Geriatric patients treatment viability and security is well maintained.
- Age groups 46–60 (23.5%) and 71–90 (23%) had mid-range cases.
- This means more patients aged 46-90 were taking both prokinetics and probiotics.
- Capsules hold 42.5% of all dosage forms as reported in the survey. Sachets; or 2 (2%), is one of the least used doses.
- 200 examples were collected overall, ranging in age from 18 and 90 yrs of age for the future perception on solution examples and wise utilisation of rheumatic drugs.
- Inpatient problem forms used for data collection for the above patient examples included: patient profile data, proof emotional and objective, evaluation, plans of treatment, results of evaluations, and progress charts, other information.
- The content is organised based on age, sex, kind of disease, history in families and objections.
- Much material is in books for full knowledge and dependable opinions. A total of 200 cases was covered in the research. According to the study expressions, males will use prokinetics or probiotics more often to cure gastrointestinal and other problems 58% of the participants were males and the other 42% were females.
- Patients were given prokinetics and probiotics depending on duration of therapy which were three days (42%), the highest number, and a minimum of six days (3.5%).

- From our sample of 200 patients, both prokinetic and probiotic prescriptions are more commonly prescribed for people weighing 41-60 kg (59%) and less prescribed in people weighing 30-40 (1.5%).
- 200 people were reported as being selected for the study and prokinetics and probiotic prescription patterns are higher for monotherapy (81.9 %) and probiotics (90.7 %), respectively and are followed by triple treatment which has a smaller range (3 %),(0 %) respectively.
- on our 200 patient data points. The patients, who were brought with signs and symptom of VTLS or abdominal discomfort more than one third (37.5%) were also given prokinetics and probiotics. On the other hand the minimum number of patients (9%) were admitted with fever and loose stools.
- Out of 200 patients' data, we found out that prescriptions for drugs were written in the highest brand preference (97%) and the lowest generic preference (3%).

VI. CONCLUSION

- RA is a disabling chronic inflammatory disease that may cause damage to the joints and long-term disability.
- Prompt diagnosis and intervention are essential in avoiding serious damage and loss of important bodily functions.
- The treating physician should consider the treat-to-target (T2T) recommendations [56], with the formulation of the aims and then the implementation of the protocols to achieve and monitor them.
- Also, early referral to a specialist may help achieve better treatment results. With advancement in molecular medicine, we have a better understanding of disease mechanisms that can help in designing more effective treatments.
- Old treatment modalities have been improved and new modalities have been introduced. The use of gene array analysis is proving helpful in identifying patients who will be more responsive to specific drugs.
- This customisation will allow for quicker treatment and decrease the likelihood of disease progression during the experimental phase in order to determine an effective treatment for a given patient.
- Gene array analysis is also being used to determine which patients are most likely to have more aggressive forms of RA.
- Treatment methods are likely to undergo tremendous improvements in the management of RA.

REFERENCES

- 1 Shipra Jain, Prerna Upadhyaya, Jaswant Goyal, Abhijit Kumar, Pushpawati Jain, Vikas Seth,1 and Vijay V Moghe2 (2015). A systematic review of prescription pattern monitoring studies and their effectiveness in promoting rational use of medicines. 2015 Apr-Jun; 6(2): 86–90. doi: 10.4103/2229- 3485.154005.
- 2 Thompson WG, Longstreth GF, Drossman DA, Heaton KW, Irvine EJ, Müller-Lissner SA. Functional bowel disorders and functional abdominal pain. Gut. 1999; 45 Suppl 2:II43-II47. doi:10.1136/gut.45.2008.089892.
- 3 Minesh khatri, MD. what to know about prokinetic agents. On September 14,2023[WebMD Editorial Contributors].
- 4 Reglan- metoclopramide hydrochloride tablet". DailyMed. 19 June 2020. Retrieved 22 November 2020
- 5 Metoclopramide hydrochloride". Monograph. The American Society of Health-System Pharmacists. Retrieved 27 September 2014 .
- 6 Ambulance Victoria Clinical Guideline A0701""Oxygen Therapy" (PDF). Ambulance Victoria.2013. Archived from the original (PDF) on 12 March 2015. Retrieved 5 December 2014.
- 7 Derry S, Moore RA (April 2013). "Paracetamol (acetaminophen) with or without an antiemetic for acute

- migraine headaches in adults". The Cochrane Database of Systematic Reviews. 2013.
- 8 Text book
- 9 Anfinson TJ. Akathisia, panic, agoraphobia, and major depression following brief exposure to metoclopramide. *Psychopharmacol Bull.* 2002 Winter;36(1):82-93. [PubMed].
- 10 Guillemot J, Compagnon P, Cartier D, Thouennon E, Bastard C, Lihmann I, Pichon P, Thuillez C, Plouin PF, Bertherat J, Anouar Y, Kuhn JM, Yon L, Lefebvre H. Metoclopramide stimulates catecholamine- and granin-derived peptide secretion from pheochromocytoma cells through activation of serotonin type 4 (5-HT₄) receptors. *Endocr Relat Cancer.* 2009 Mar;16(1):281-90. [PubMed].
- 11 Weinstein RB, Fife D, Sloan S, Voss EA, Treem W. Prevalence of Chronic Metoclopramide Use and Associated Diagnoses in the US Pediatric Population. *Paediatr Drugs.* 2015 Aug;17(4):331-7. [PMC free article] [PubMed].
- 12 Medically reviewed by Philip Thornton, DipPharm. Last updated on Aug 23, 2023.
- 13 Volans GN. The effect of metoclopramide on the absorption of effervescent aspirin in migraine. *Br J Clin Pharmacol.* 1975 Feb;2(1):57-63. [PMC free article] [PubMed].
- 14 Joy MS, Frye RF, Stubbert K, Brouwer KR, Falk RJ, Kharasch ED. Use of enantiomeric bupropion and hydroxybupropion to assess CYP2B6 activity in glomerular kidney diseases. *J Clin Pharmacol.* 2010 Jun;50(6):714-20. [PMC free article] [PubMed].
- 15 Mazhar F, Akram S, Haider N, Ahmed R. Overlapping of Serotonin Syndrome with Neuroleptic Malignant Syndrome due to Linezolid-Fluoxetine and Olanzapine-Metoclopramide Interactions: A Case Report of Two Serious Adverse Drug Effects Caused by Medication Reconciliation Failure on Hospital Admission. *Case Rep Med.* 2016;2016:7128909. [PMC free article] [PubMed].
- 16 Worthington I, Pringsheim T, Gawe MJ, Gladstone J, Cooper P, Dilli E, et al. "Canadian Headache Society Guideline: acute drug therapy for migraine headache". *The Canadian Journal of Neurological Sciences. Le Journal Canadien des Sciences Neurologiques* (September 2013).
- 17 Reddy SC, Soykan I, McCallum RW- "Domperidone: review of pharmacology and clinical applications in gastroenterology". *The American Journal of Gastroenterology* (September 2007).
- 18 Savio C Reddy SC et al. *Am J Gastroenterology.* Domperidone: review of pharmacology and clinical applications in gastroenterology 2007 Sep.
- 19 Medically reviewed by Philip Thornton, DipPharm. Last updated on Apr 4, 2023.
- 20 Lozano R, Concha MP, Montealegre A, et al. Effectiveness and safety of levosulpiride in the treatment of dysmotility-like functional dyspepsia. *Ther Clin Risk Manag.* 2007.