

THE EFFICIENCY OF GLUCOCORTICOIDS (GCS) IN THE TREATMENT OF RHEUMATOID ARTHRITIS**Dr. Md. Fazlul Wahab Chowdhury^{*1}, Dr. Mohammad Abdul Hannan², Dr. Mohammad Kawser Uddin Shouaibe³, Dr. Fazla Alahi Khan⁴, Prof. Dr. Sahedul Islam Bhuiyan⁵ and Dr. Abu Mohammad Saem⁶**¹Assistant Professor, Dept. of Medicine, Brahmanbaria Medical College, Ghatura, Brahmanbaria Sadar, Bangladesh.²Consultant, Dept of Anaesthesia, Analgesia and Intensive Care Medicine, Bangabandhu Sheikh Mujib Medical University, Shahbag, Dhaka, Bangladesh.³Assistant Professor, (Medicine) Abdul Malek Ukil Medical College, Noakhali, Bangladesh.⁴Assistant Professor, Department of Nephrology, Abdul Malek Ukil Medical College, Noakhali, Bangladesh.⁵Professor of Respiratory Medicine, Brahmanbaria Medical College, Brahmanbaria, Bangladesh.⁶Lecturer, Department of Pathology, Comilla Medical College, Comilla, Bangladesh.***Corresponding Author: Dr. Md. Fazlul Wahab Chowdhury**

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ABSTRACT

Objective: In this study our main goal is to evaluate the efficiency of Glucocorticoids (GCs) in the treatment of Rheumatoid arthritis. **Method:** This observational and experimental type of study was done at large district level hospital (FENI DIABETES HOSPITAL) in Bangladesh, from January 2017 to January 2018. 100 RA patients were enrolled in this, considered for the study population. Sample were collected through purposive sampling as per inclusion criteria. **Results:** during the study, 40% had weight loss, 30% had fever, 20% fatigue, 40% had loss of appetite, 30% had morning stiffness. According to glucocorticoids usage 20% use glucocorticoids always followed by 25% used very often, 27% used sometimes, 16% use rare and 9.3% patients never used. **Conclusion:** from our result we can conclude that, steroids usage for the treatment of rheumatoid arthritis in adult patients is very often among physicians in Bangladesh. According to this overall tolerability, safety and patient compliance with oral GCs is fair to excellent.

KEYWORDS: Glucocorticoids (GCs), Rheumatoid arthritis (RA), autoimmune disorder.**INTRODUCTION**

Rheumatoid arthritis (RA), an autoimmune disorder (autoimmune diseases-is a condition arising from an abnormal immune response to a functioning body part) which affects about 0.5-1% people results in significant morbidity and mortality because of extra articular problems and associated comorbidities.^[1-2] Similarly, articular mobility and disability is also a major concern in RA. Glucocorticoids (GCs) and Disease Modifying Anti-Rheumatic Drugs (DMARDs) are common medicines used in the management of RA.

Glucocorticoids (GCs) are one of the important, conventional and widely used agents because of their ability to decrease signs and symptoms in inflammatory disorders. These drugs also exert disease-modifying effect, especially when used in the early stage of the disease and may avoid development of severe consequences in patients with severe clinical presentation at the beginning.^[8] Even after their presence for more than six decades and introduction of other therapies, GCs remain the cornerstone therapy for management of RA.

In this study, our main goal is to evaluate the efficiency of Glucocorticoids (GCs) in the treatment of Rheumatoid arthritis.

OBJECTIVE

- To assess the efficiency of Glucocorticoids (GCs) in the treatment of Rheumatoid arthritis.

METHODOLOGY**Types of study**

- It was observational and experimental type study.

Place and period of the study

- This study was conducted at large district level hospital (FENI DIABETES HOSPITAL) from January 2017 to January 2018.

Study population

- 100 RA patients were enrolled in this study, considered for the study population. Sample were collected through purposive sampling as per inclusion criteria.

Method

- Both qualitative and quantitative (Mixed Method) data were collected by using a pre designed questionnaire. The questionnaire was prepared reviewing literature and consulting with medical research experts.

Data analysis

- All collected data were coding and input in SPSS-25 for further analysis. Both descriptive and inferential statistics done. Descriptive statistics included frequency distribution, percent, mean, standard deviation; graph, tables, figures and inferential statistics.

RESULTS

In table-1 shows age distribution of the patients where most (50%) of the patients belong to 41-50 years age group. The following table is given below in detail:

Table-1: Age distribution of the patients.

Age group	%
41-50	50%
51-60	30%
>60	20%

In figure-1 shows gender distribution of the patients where 50% were male and 50% were female. The following table is given below in detail:

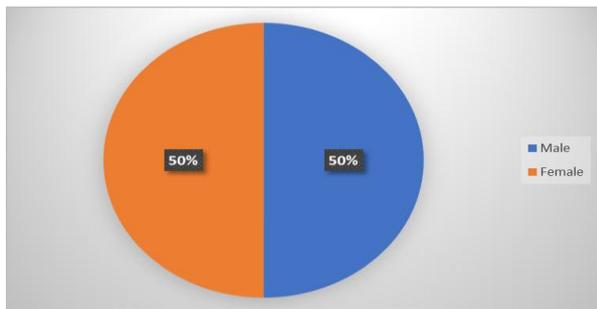


Figure-1: Gender distribution of the patients.

In table-2 shows distribution of the patients according to clinical manifestation where 40% had weight loss, 30% had fever, 20% fatigue, 40% had loss of appetite, 30% had morning stiffness. The following table is given below in detail:

Table-2: Distribution of the patient according to clinical manifestation.

Clinical manifestation	%
Raynaud	10%
Myalgias	46%
Xerostomia	15%
Weight loss	40%
Fever	30%
Fatigue	20%
Loss of appetite	40%
Morning stiffness	30%

In table-3 shows distribution of the patients according to glucocorticoids usages where 20% use glucocorticoids always followed by 25% used very often, 27% used sometimes, 16% use rare and 9.3% patients never used. The following table is given below in detail:

Table-3: Distribution of the patients according to glucocorticoids usages.

Glucocorticoids dosages	Initial treatment
Always	20%
Very often	25%
Sometimes	27%
Rarely	16%
Never	9.3%

In table-4 shows distribution of the patients according to clinical and functional improvement where Clinical and functional improvement was reported as excellent 35% and 25% to very good 45 to 38%. The following table is given below in detail:

Table-4: Distribution of the patients according to clinical and functional improvement.

Grade	Clinical improvement	Functional improvement
Excellent	35%	25%
Very good	45%	38%
Good	18%	25%
Fair	2%	9%
Poor	0%	0%

DISCUSSION

Glucocorticoids play an important role in the management of RA.^[10] Despite being in use since many decades, GCs are still cornerstone for the treatment of RA.

As documented in literature, GCs are widely used and are an important therapy for the management of RA in Bangladesh. About three fourth physicians use GC “sometimes to always” in the initial treatment of RA.^[11,12]

The percentage of physicians using GCs in acute exacerbation of disease is still more. This wide spread usage maybe because of the ability to quickly reduce inflammation and thereby signs and symptoms.^[4] GCs can be useful to tide over till DMARDs show their effect.^[13] In accordance to this, close to 55% physicians reported using them “very often to always” for relieving symptoms before DMARDs show effect.

Long term use of GCs for maintenance therapy is a controversial.^[13] Close to two third physicians “rarely or never” use them for maintenance treatment. Some use them if other treatment option is not available or contraindicated. If used with precautions, long term therapy of GCs can be a good choice considering its anti-inflammatory benefits and protective action against structural damage.^[13]

In our study, according to glucocorticoids usage, 20% use glucocorticoids always followed by 25% used very often, 27% used sometimes, 16% use rare and 9.3% patients never used. Also, according to clinical and functional improvement, clinical and functional improvement was reported as excellent 35% and 25% to very good 45 to 38%. Which was similar to many studies.^[14-15]

CONCLUSION

From our result we can conclude that, steroids usage for the treatment of rheumatoid arthritis in adult patients is very often among physicians in Bangladesh. According to this overall tolerability, efficiency, safety and patient compliance with oral GCs is fair to excellent.

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