ORIGINAL RESEARCH PAPER

Pharmacology

ADVERSE EFFECTS OF DEXAMETHASONE, LEFLUNOMIDE, AND METHOTREXATE IN RHEUMATOID ARTHRITIS TREATMENT.

KEY WORDS:

Dr. Dharmendra Garg

Assistant Professor, Department Of Pharmacology, R.N.T. Medical College, Udaipur Rajasthan, India.

1. Serum Creatinine Levels in Subjects

Time	Dexamethasone Group	Leflunomide Group	Methotrexate Group
Baseline	0.88 ± 0.19	0.86 ± 0.04	0.86 ± 0.04
Endpoint	1.19 ± 1.82	0.86 ± 0.05	0.88 ± 0.03
Mean Change	0.31 ± 1.63	0.0 ± 0.01	0.02 ± 0.01
P-value	>0.1 (NS)	>0.1 (NS)	>0.1 (NS)

2. Serum Bilirubin Levels in Subjects

Time	Dexamethasone Group	Leflunomide Group	Methotrexate Group
Baseline	0.85 ± 0.24	1.00 ± 0.21	1.05 ± 0.21
Endpoint	1.22 ± 1.83	0.94 ± 0.22	0.98 ± 0.24
Mean Change	0.37 ± 1.59	(-)0.06 ± 0.01	(-)0.07 ± 0.03
P-value	>0.1 (NS)	>0.1 (NS)	>0.1 (NS)

3. SGOT Levels in Subjects

Time	Dexamethasone Group	Leflunomide Group	Methotrexate Group
Baseline	25.02 ± 5.38	24.41 ± 2.69	23.83 ± 4.94
Endpoint	24.48 ± 3.16	24.97 ± 2.70	25.05 ± 3.46
Mean Change	(-)0.54 ± 2.22	0.56 ± 0.01	1.22 ± 1.48
P-value	>0.1 (NS)	>0.1 (NS)	>0.1 (NS)

4. SGPT Levels in Subjects

Time	**Dexamethasone Group**	**Leflunomide Group**	**Methotrexate Group**
Baseline	24.51 ± 5.20	24.25 ± 2.54	23.29 ± 4.56
Endpoint	23.45 ± 3.16	24.47 ± 2.32	25.02 ± 2.88
Mean Change	(-)1.06 ± 2.04	0.22 ± 0.22	1.73 ± 1.68
P-value	>0.1 (NS)	>0.1 (NS)	>0.1 (NS)

5. Adverse Events in Subjects

Adverse Event	**Dexamethasone Group**	**Leflunomide Group**	**Methotrexate Group**
Diarrhea	2 (5.55%)	3 (8.33%)	2 (5.55%)
Respiratory Infection	4 (11.11%)	2 (5.55%)	3 (8.33%)
Nausea	1 (2.75%)	2 (5.55%)	1 (2.75%)
Headache	2 (5.55%)	5 (13.88%)	3 (8.33%)
Abnormal Hepatic Enzyme Levels	0 (0%)	1 (2.75%)	0 (0%)
Rash	0 (0%)	1 (2.75%)	0 (0%)
GI Pain	1 (2.75%)	3 (8.33%)	2 (5.55%)

Key Observations:

1. Serum Creatinine and Bilirubin:

- Minimal changes across all groups, with statistically insignificant differences ($p > 0.1$).

2. Liver Enzymes (SGOT/SGPT):

- Small changes noted in SGOT and SGPT values, with no significant differences ($p > 0.1$).

3. Adverse Events:

Leflunomide appears to have the highest number of adverse effects overall. It has:

- Diarrhea (3 cases, 8.33%) – highest among the three groups.
- Respiratory Infection (2 cases, 5.55%) – lowest among the three groups.
- Nausea (2 cases, 5.55%) – highest among the three groups.
- Headache (5 cases, 13.88%) – highest among the three groups.
- Abnormal Hepatic Enzyme Levels (1 case, 2.75%) – the only drug with this adverse effect.
- Rash (1 case, 2.75%) – the only drug with this adverse effect.
- GI Pain (3 cases, 8.33%) – highest among the three groups.