EVALUATION OF PATHOLOGICAL AND BIOCHEMICAL PARAMETERS IN RHEUMATOID ARTHRITIS PATIENTS

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ABSTRACT

50 cases of Rheumatoid Arthritis between the age group of 20-60 yrs of any sex were studied. Haemoglobin (Hb) and Erythrocyte Sedimentation Rate (ESR) showed improvement in Follow up. Test for Rheumatoid Factor (RF) became Negative in 4 cases. C - reactive protein (CRP) became Negative in 9 cases. Blood Glucose and Serum Uric Acid remained normal. PH and Specific gravity of Urine showed no change. Stool was also examined in which no abnormality was detected.

KEYWORDS: Rheumatoid Arthritis, Hb, ESR, RF, CRP, Glucose, Uric Acid, Urine, Stool.

INTRODUCTION

Rheumatoid arthritis (RA) is a commonest form of chronic inflammatory joint disease. In its typical form RA is a symmetrical destructive poly-arthritis affecting small and large synovial joints in the associated systemic disturbance. A variety of extra articular features and the presence of circulating antiglobulin antibodies (rheumatoid factors). A diagnosis of Rheumatoid arthritis can be established in patients in the clinical features of inflammatory arthritis of 6 weeks duration. Criteria for the rheumatoid arthritis may be taken as morning stiffness. Arthritis of hand joints, symmetrical Arthritis, Rheumatoid nodules, rheumatoid changes. If we go through in the classical literate

of Unani medicine Rheumatoid arthritis has been described under three names, viz. Wajaul Mafasil, Hudar and Gathia. Majusi describes the aetiology of WajaulMafasil a very completed phenomenon so it is difficult to ascertain the exact cause of the disease. According to Ibn-e-sena the psychic factor plays an important role in the causation of this disease. Unani literature also reveals Sue Mizaj (derangement of Akhlat) as the cause of disease.

METHODS

Total 50 patients of any sex between the age group of 20-60 yrs were studied for evaluation of coded Unani drugs supplied by Central Council for Research in Unani Medicine, New Delhi since 2003 onwards. Pathological and Biochemical Parameters were recorded at Base Line, at Follow Ups and at the End of Study. Pathological Parameters studied were Haemoglobin, Erythrocyte Sedimentation Rate, Total Leucocytes Count, Differential Leucocytes Count, Urine Examination and Stool Examination. First early morning Urine specimen was collected. Biochemical Parameters were Rheumatoid Factor, C - reactive protein, Blood Glucose and Serum Uric Acid.

Colorimetric method with Drab kin's Solution was used for Haemoglobin estimation and Westergren's method for ESR. Urine Analysis was done by Multistix Strips (Bayer) and Stool was examined by Microscope.

Estimation was done for Blood Glucose by GOD-POD, Serum Uric acid by Uri case and RF, CRP by Latex method.
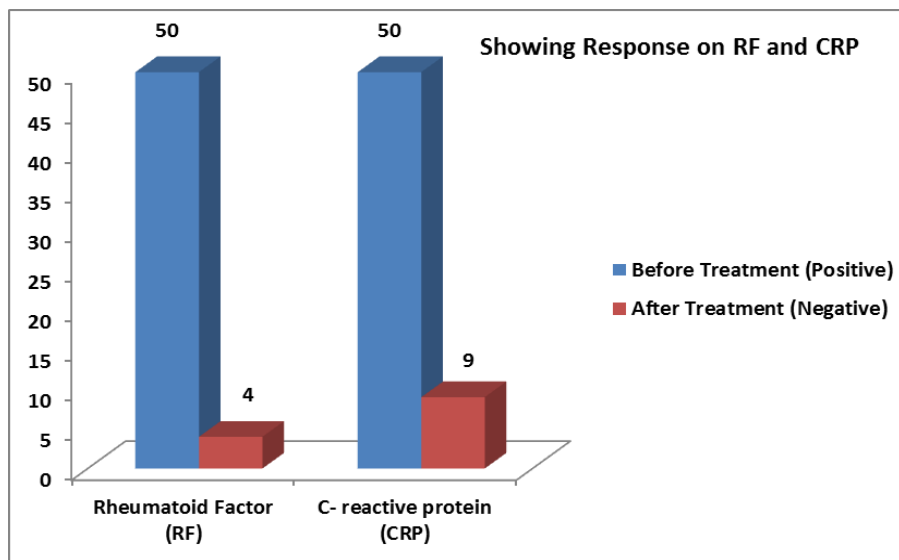
RESULTS

Table 1: Showing statistical changes in various pathological parameters.

S.No	Parameters	Baseline (Mean± SD)	After Treatment (Mean± SD)
1.	Haemoglobin 14-18 g%-male 12-16 g%-female	10.5354±1.2538	10.6834±1.6965
2.	Erythrocyte sedimentation Rate 0-10 mm/1sthr. 0-20 mm/1sthr.	62.9553±30.0546	51.0340± 31.4291
3.	Total Leucocytes count 4000-10000/cmm	7593.2543±512.0134	7450.2150±613.1453
4.	Differential leucocytes count a) Polymorph (40-75%) b) Lymphocyte (20-45%) c) Monocyte (2-10%) d) Eosinophil (1-5%)	59.4545±8.7493 35.9654±6.8519 00.6035±0.5654 05.0173±2.2187	59.4342±7.5145 34.8614±7.8172 00.5401±0.4309 04.6208±3.9514

Table 2: Showing Response on Rheumatoid Factor and CRP.

S.No	Investigation	Before Treatment	After Treatment
1.	Rheumatoid Factor	50 (+ ve)	04 (- ve)
2.	C- reactive protein	50 (+ ve)	09 (- ve)

Table 3: Showing statistical changes in biochemical parameters.

S.No	Parameters	Baseline (Mean± SD)	After Treatment (Mean± SD)
1.	Blood Glucose 70-105 mg/dl	80.2634±15.7508	76.3402±11.8709
2.	Serum Uric Acid 3.2-7.2 mg/dl 2.6-6.0 mg/dl	4.578±1.2763	3.9217±1.20951

DISCUSSION

Table 1 shows Hb content was below normal. ESR was raised and showed improvement in follow up. The TLC and DLC were within normal range. The Urine pH was within normal range. Relative mass density remained within 1000-1025. Other parameters like Urine sugar, Albumin, Urobilinogen, Bilirubin and Ketone were observed normal. Urine microscopy showed occasional presence of epithelial cells and pus cells. Stool microscopy did not showed presence of any parasites and amoeba.

Table 2 shows that tests for rheumatoid factor were negative in 4 cases and tests for CRP were negative in 9 cases.

Table 3 shows that in affected subjects blood Glucose and serum Uric acid were normal.

CONCLUSION

Some response was found in ESR, Rheumatoid Factor and C - reactive protein.

RECOMMENDATIONS

To initiate programs including nutritional education and health education. To educate females about healthy diet. To educate the patients to overcome disability. Development of an information, education, and communication (IEC) strategy for improving the health status.

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