

I. Pałyga¹, A. Kowalska¹, J. Myśliwiec², G. Gajos³, R. Pałyga⁴, D. Gąsior-Perczak¹

IS CLINICAL ACTIVITY SCORE (CAS) A SUFFICIENT INDICATOR OF THE RESPONSE TO THERAPY WITH METHYLPREDNISOLONE INTRAVENOUSLY (MP) AND EXTERNAL RADIOTHERAPY (RT) FOR GRAVES ORBITOPATHY (GO)?

¹Department of Endocrinology and Nuclear Medicine, Holycross Cancer Centre, Kielce, Poland ²Nuclear Medicine Department, Medical University in Bialystok, Bialystok, Poland ³Outpatient Ophthalmology Clinic, Kielce, Poland

⁴Department of Radiology, Holycross Cancer Centre, Kielce, Poland

BACKGROUND

Treatment of GO is one of the most difficult problems in clinical endocrinology.

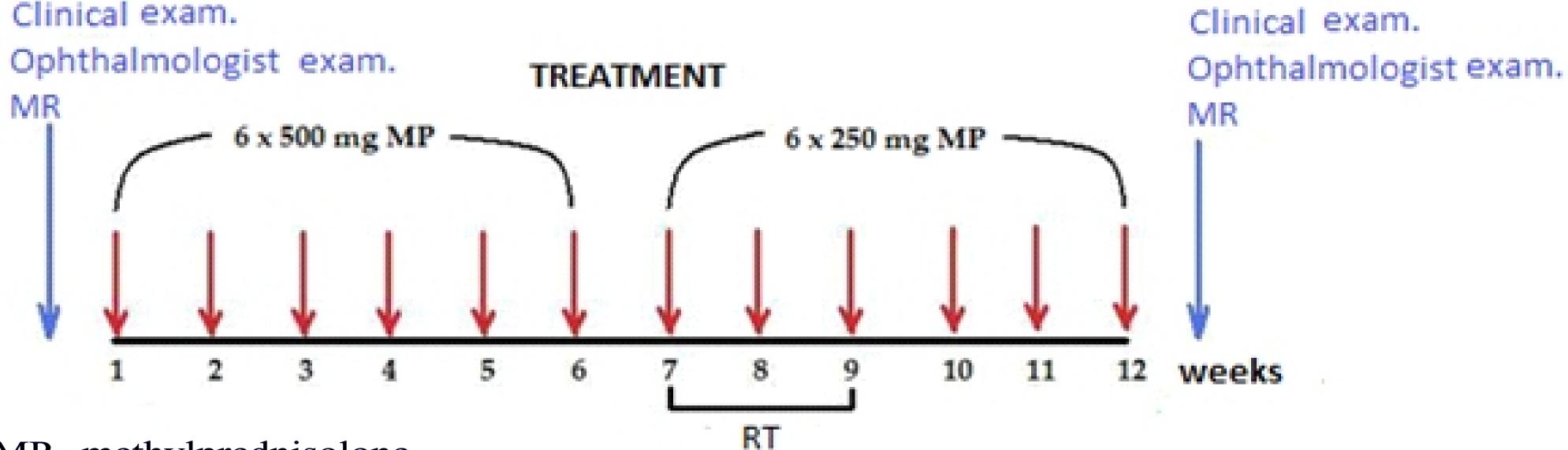
OBJECTIVES

To establish the efficacy of the regime used in the treatment of GO and to analyze methods used to determine treatment effectiveness.

MATERIAL AND METHODS

The study involved 30 patients (22 women and 8 men in mean age 48 ± 12 years) with moderate to severe GO (according to the classification of EUGOGO) being in the active phase of GO

METHOD:



MP methylprednisolone RT radiotherapy (1 Gy per day- for 10 days in weeks 7 and 8)

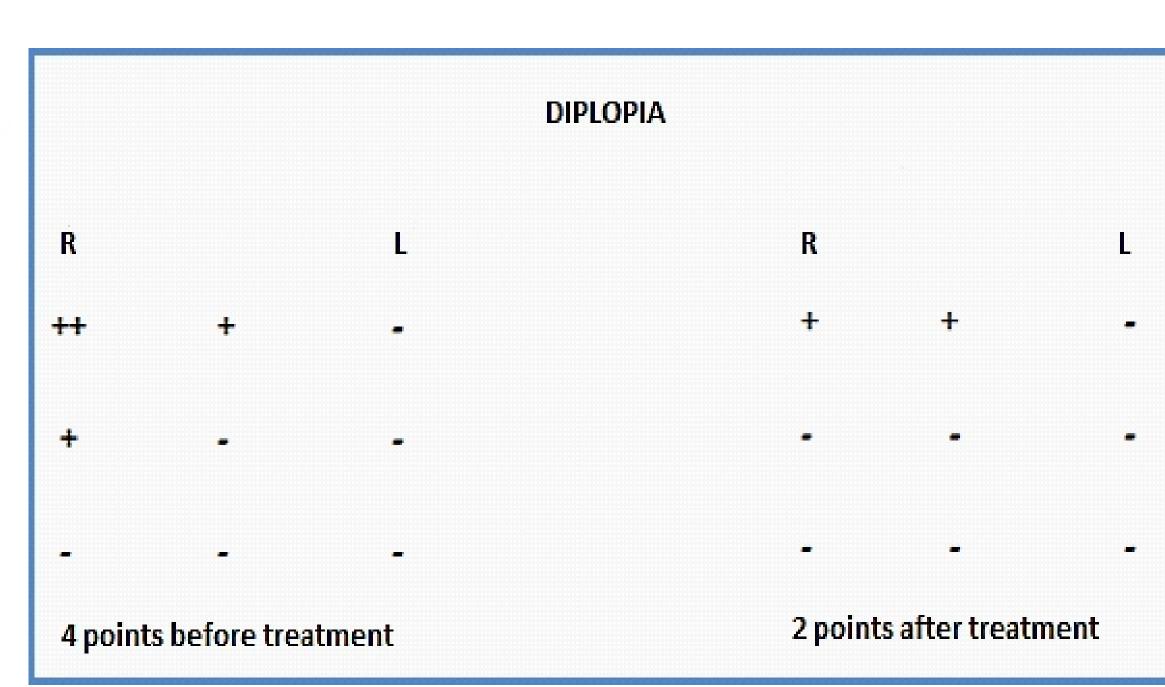
Clinical examination with CAS

Ophthalmologist examiation with determining exophtalmos (Hertel)

MR examination of retrobulbal region determining the number of muscles involved,

their thickness, activity and radiological degree of exophthalmos.

Diplopia - determined subjectively by the patients.



+ mild diplopia ++ severe diplopia

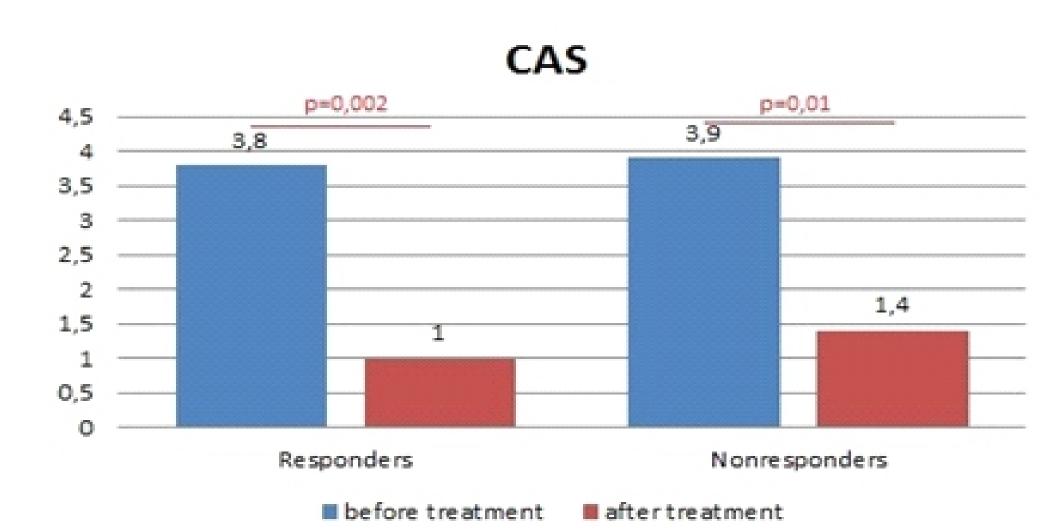
2. Statistically significant reduction in the severity of diplopia, exophthalmos (Hertel),

number and thickness of involved muscles in RESP group compared to

L- left R- right

RESULTS

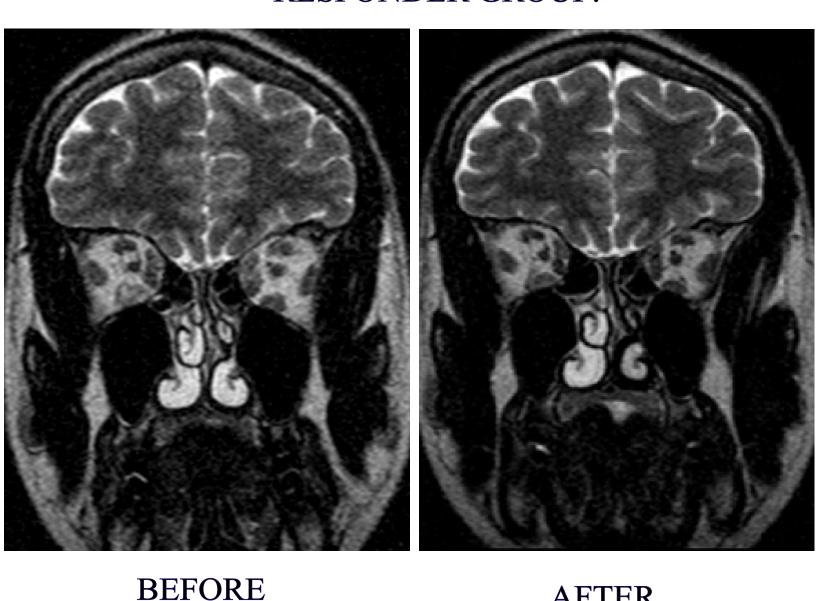
1. A reduction (normalization) in CAS in all patients (mean reduction rate of 2.5 points in RESP, and of 2.4 in NON-RESP)



3. Inflammatory activity in extraocular muscles has normalized in all patients from the RESP group (normalization of signal in T2 time in MR), in contrast to the lack of normalization in the NON-RESP group.

RESPONDER GROUP:

NON-RESP GROUP:



AFTER

BEFORE



AFTER

Nonre sponders ■ before treatment ■ after treatment Hertel exohpthalmometer - right eye 18 17 ---Responders Nonre sponders ■ before treatment ■ post treatment Thickness of extraocular muscles - rectus inferior- right eye

before treatment after treatment

Double vision

no statistically significant reduction in these parameters in NON-RESP group. involved muscles (%) Nonresponders ■ before treatment ■ after treatment Hertel exohpthalmometer - left eye 21 21 Responders Nonre sponders ■ before treatment
■ after treatment Thickness of extraocular muscles - rectus inferior- left eye Nonre sponde rs ■ before treatment ■ after treatment

CONCLUSIONS

- 1 In our opinion, the normalization of CAS does not always indicate a sufficient clinical response to treatment with above regime (MP + RT).
- 2 If measured only by CAS the treatment regime reaches 100% efficacy. After joining the results of ophthalmological examination, MR, and subjective assessment of the diplopia, the efficacy decreases to 80%.