

CLINICAL EXAMINATION OF TROPICAMID OPHTHALMIC DROPS-POLAND

H. Grupcheva, I. Grupchev

Department of Ophthalmology, Varna

The various ophthalmic cycloplegics that are commercially available have a large variability of responses in terms of the onset time of the pupillary dilatation and cycloplegia. In Bulgaria we used GDR drops-Mydrum.

Polish patent medicine *Tropicamid* is unknown in our country and our team examined 0,5% and 1% drops. The practitioner has the option to select the agent that has the characteristics which are most consistent with type of ocular examination or procedure that is to be performed (1-3).

Tropicamid is a relatively newer cycloplegic and has gained widespread acceptance as one of the most useful ophthalmic agents for routine dilatation of pupil for direct and indirect ophthalmoscopy and fundus photography. In addition, it is considered to be the agent of choice when the practitioner dilates a closeable grade 1 or 2 anterior chamber angle of phakic patients.

We studied 160 eyes of 80 patients with hypertonia, myopia, diabetes, another diseases and as well as healthy ones, ranging in age from 20 to 80 years. We used 0,5% and 1% of *Tropicamid*. In the left eye of every patient we poured out one drop of 0,5% TR. In the right eye the same quantity of 1% TR was poured out. Measuring the pupil diameter was done after 10, 20, 30, 40 min with ophthalmological ruler.

Table 1 represents patients' characteristics and dynamics of the pupil diameter after using the *Tropicamid*. It is visible that extremal dilation is 6,9 after 20 min for 1% TR and after 30 min for 0,5% TR. As it can be seen *Tropicamid* has the optimal onset time and duration of action for the practice.

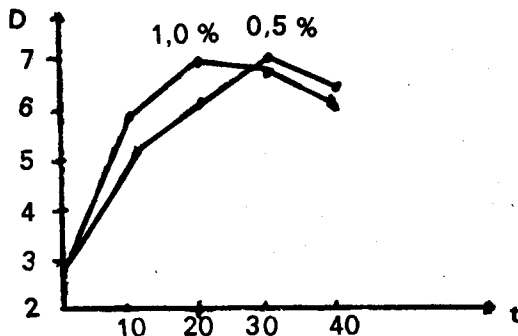
Ophthalmic mydriatics are those sympathomimetic agents that cause an enhanced contractability of the m. dilatator pupillae and an increased pupillary diameter.

The indications for the adrenergic pharmaceutical agents (TR for example) utilised for diagnostic purposes include their use with direct and indirect ophthalmoscopy to ensure an improved inspection of the posterior pole.

Table 1

Pathology	TR	Sex		Age			Mean pupil diameter				
		m	f	20	40	60	st.	10'	20'	30'	40'
Hypertonia	0,5%	12	14	5	20	1	2,5	5,0	6,4	7,0	6,7
	1%	12	14	5	20	1	2,5	5,6	7,0	6,7	6,4
Myopia	0,5%	6	9	9	6	0	2,6	5,4	6,3	6,9	6,4
	1%	6	9	9	6	0	2,6	5,8	6,9	6,4	6,3
Diabetes	0,5%	5	9	2	10	2	2,4	4,8	6,3	6,9	6,5
	1%	5	9	2	10	2	2,4	4,8	6,3	6,9	6,5
Other	0,5%	6	9	9	6	0	2,5	5,3	6,1	6,9	6,1
	1%	6	9	9	6	0	2,5	5,9	7,1	6,9	6,5
Healthy	0,5%	6	4	7	3	0	2,7	5,2	6,0	7,0	6,5
	1%	6	4	7	3	0	2,7	5,8	7,1	6,9	6,8
Total	0,5%	70	90	64	90	6	2,5	5,1	6,3	6,9	6,5
	1%	70	90	64	90	6	2,5	5,7	6,9	6,7	6,2

Figure 1 shows the relation between pupillary diameter and time.



Homatropine, Neo-synephrine and Tropicamidum, belong to the commercially available mydriatic drops. Tropicamid is the most suitable for our practical needs because of his low price and effectiveness.

REFERENCES: 1. Krushkov, I.H., I.T. Lambev. Reference book in Pharmacotherapeutics. 2. ed., 1989. 2. Terry, J.E. Ocular diseases. 1984. 3. Sears, M.L. Surgical Pharmacology of the eye. 1985.