

CONTENTS

1-	Introduction	1
2-	Aim of the work	3
3-	Reveiw of litrature	
	* Anatomy	4
	* Physiology	13
	* Diabetic macular edema	20
	- Definition	20
	- Epidemiology	20
	- Pathology of macular edema	21
	- Types of macular edema	26
	- Diagnosis of macular edema	29
	- Photocoagulation therapy	44
4-	Subject and method	60
5-	Results	66
6-	Discussion	94
7-	Summary and Conclusion	104
8-	References	107

LIST OF FIGURES

No.	Title	Page
(1, 2)	Anatomy of the macula	8
(3)	Colored fundus photography of case with focal macular edema	27
(4)	Fluoresceine angiography of case with focal macular edema	27
(5)	Colored fundus photography of case with diffuse macular edema	28
(6)	Fluoresceine angiography of case with diffuse macular edema	28
(7)	Grid centered on the macula for judging distances.	37
(8)	Composite schematic showing the various lesions of clinically significant macular edema.	43
(9)	Dicon 200 perimeter	65
(10)	Zeiss PC argon laser photocoagulator	65
(11)	Relation between type of macular edema and initial visual acuity	68
(12)	Distribution of patients according to type of diabetes mellitus	69
(13)	Relation between mode of treatment of diabetes mellitus and type of macular edema	71
(14)	Distribution of patient according to duration of diabetes mellitus	72
(15)	Relation between incidence of macular edema and duration of diabetes mellitus	74

No.	Title	Page
(16)	Relation between type of macular edema and visual results	76
(17)	Colored fundus photography of case with focal macular edema before laser photocoagulation	77
(18)	Fluoresceine angiography of same patients in Fig. 17	77
(19)	Colored fundus photography of same patient in Fig. 17 after laser photocoagulation	78
(20)	Fluoresceine angigraphy of same patient in Fig. 17 after laser photocoagulation	78
(21)	Colored fundus photography of a case of focal macular edema	79
(22)	Fluoresceine angiography of the same patient in Fig. 21 showing microaneurysms	79
(23)	The same patient in Fig. 21 after laser treatment showing decrease of hard exudates	80
(24)	Fluoresceine angiography of the same patient in Fig. 21 showing laser marks and decrease of leaking foci	80
(25)	Fluoresceine angiography of a case of focal macular edema showing leaking microaneurysms	81
(26)	Same patient in Fig. 25 after laser treatment with disappearance of leaking microaneurysms	81
(27)	Colored fundus photography of case with diffuse macular edema before laser photocoagulation	82
(28)	Fluoresciene angiography of same patient in Fig. 27	82

No.	Title	Page
(29)	Colored fundus photography of same patient in Fig. 27 after laser photocoagulation	83
(30)	Fluoresceine angiography of same patient in Fig. 27 after laser photocoagulation	83
(31)	A case of diffuse macular edema	84
(32)	Fluoresceine angiography of the same patient in Fig. 31	84
(33)	Same patient in Fig. 31 after laser treatment with persistance of hard exudates	85
(34)	Same patient in Fig. 31 after laser treatment with decrease of leaking microaneurysms	85
(35)	Colored fundus photography of case with diffuse macular edema before laser photocoagulation	86
(36)	Fluoresceine angiography of same patient in Fig. 35	86
(37)	Colored fundus photography of same patient in Fig. 35 after laser photocoagulation	87
(38)	Fluoresceine angiography of same patient in Fig. 35 after laser photocoagulation	87
(39)	Fluoresceine angiography showing multiple leaking microaneurysms	88
(40)	Same patient in Fig. 39 after laser treatment with persistance of leaking areas and increase of leaking microaneurysms	88
(41)	The relation between the type and rate of absorption of macular edema	90
(42)	Central field before and after modified grid laser photocoagulation	93
(43)	Central field before and after focal laser photocoagulation	92

LIST OF ABBREVIATIONS

No.	Title	
(1)	DM	Diabetes Mellitus
(2)	IDD	Insulin Dependent Diabetes Mellitus
(3)	NIDD	Non- Insulin Dependent Diabetes Mellitus
(4)	ETDRS	Early Treatment Diabetic Retinopathy Research
(5)	V/A	Visual Acuity
(6)	CSME	Clinicaly Significant Macular Edema
(7)	RPE	Retinal pigment epithelium
(8)	OCT	Optical coherence tomography
(9)	PVD	Posterior vitreous detachment
(10)	NV	Neo vessels
(11)	DD	Disc diameter
(12)	FAZ	Foveal avascular zone

1

1