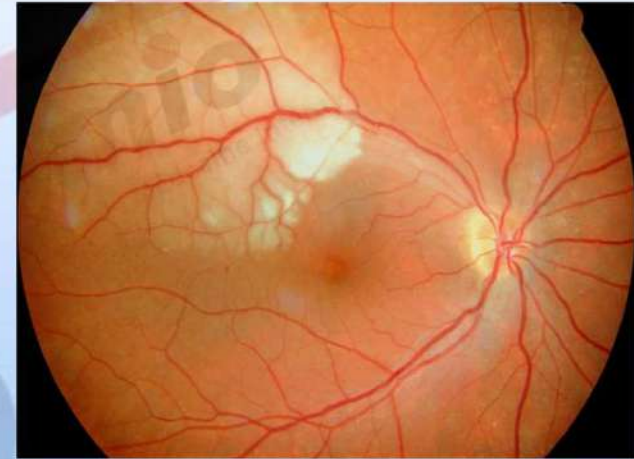
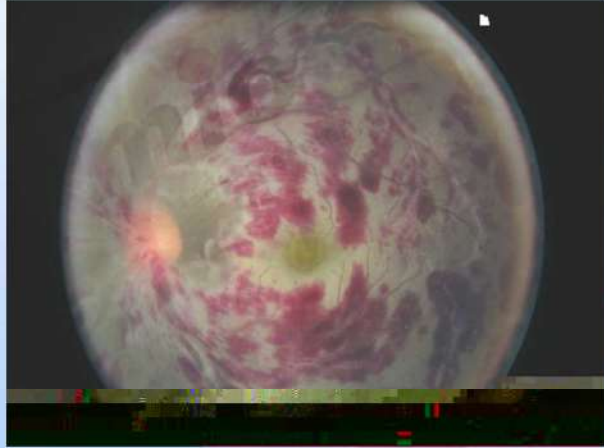


Vasculites rétiniennes



Club Oeil et Médecine Interne
Paris
FMC du 26 Septembre 2014

B. Bodaghi & D. Saadoun

*Service d'Ophtalmologie/Département Médecine Interne et Immunologie Clinique
CHU Pitié-Salpêtrière*



i2B INFLAMMATION
IMMUNOPATHOLOGIE
BIOTHÉRAPIE
DÉPARTEMENT HOSPITALO-UNIVERSITAIRE - DHU

Introduction

- ● Epidémiologie mal connue
- ● Entité à part entière à la frontière des uvéites intermédiaires et postérieures
- ● Spectre de gravité étendu
- ● Importance de l'orientation diagnostique
- ● Identification des critères de gravité
- ● Escalade thérapeutique

Principales questions

- ● BAV
- ● Hyalite
- ● Artérielle, veineuse ou mixte
- ● Maladie de système associée
- ● Stratégie thérapeutique
- ● Complications

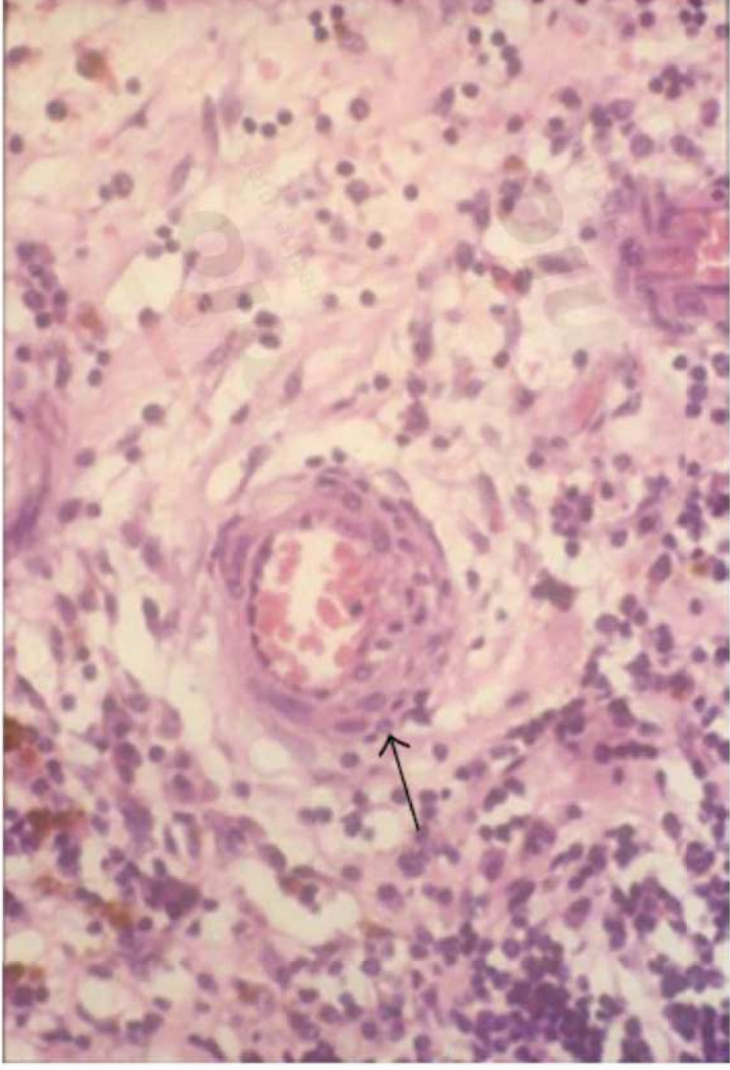


FIGURE 1: Histopathological image of a retinal blood vessel involved in Behçet's disease (H & E stain). Note the perivascular infiltration of lymphocytes around the vessel (arrow).

**Perivasculite
(infiltrat LyT perivx++)**



**Lésions endothéliales +/-
thromboses , occlusions**



Ischémie rétinienne



**Production de VEGF
OM, néovx +/- HIV**

Bilan

- ● Souvent extensif
- ● Etiologique et fonctionnel
- ● Eliminer une infection
- ● Confirmer une maladie autoinflammatoire systémique ou oculaire pure
- ● Répéter si besoin

Vascularite rétinienne

Infectieuses

Maladies virales

herpes virus (HSV, VZV, CMV, EBV)
autres : VIH, HTLV1, West Nile ...

Maladies bactériennes

Tuberculose
Syphilis
Lyme
Barthoneilla
Whipple
Rickettsiose, brucellose, leptospirose

Maladies parasitaires

Toxoplasmose
Toxocarose
autre

Maladies Ophtalmologiques

Maladie de Eales
Choriorétinopathie Birdshot
Syndrome IRVAN
Pars splanite
Angéite givrée
Ophtalmie sympathique
Choroïdite multifocale

Vascularite rétinienne
idiopathique

Non Infectieuses

Maladies Systémiques

Maladie de Behcet
Sarcoïdose
Sclérose en plaques

Susac
MICI
HLA B27
Vascularites, Lupus, SAPL

Principales étiologies en fonction des atteintes rétiniennes

Fond d'oeil	Diagnostic
Veines	Behcet, BK, sarcoïdose, SEP, Eales, pars planite
Artères	Vascularites (GPA, CSS, Takayasu...), Lupus, SAPL, IRVAN, SUSAC, nécrose rétinienne aigue.
Nodules cotonneux	Vascularites idiopathiques, Lupus, Vascularites systémiques, IRVAN, PAN, Wegener, Cryoglobulinémie
Infiltrats réiniens	Behcet, Bartonella
Rétinite nécrosante	Toxoplasmose, ARN, CMV
Ischémies rétiniennes	BK, Eales, Behcet, SEP, sarcoïdose
Occlusions veineuses	Behcet, BK, sarcoïdose
Occlusions artérielles	Lupus, vascularites systémiques, SUSAC, toxoplasmose

Angiographie Vascularite rétinienne

Infectieuses

Non Infectieuses

- Terrain, Contage ou ATCD BK,
- Clinique
- Sérologies +/- PCR Herpes virus, toxoplasmose, TPHA-VDRL, VIH, Lyme, QF +/-IDR, hémocultures. (Puis Whipple, Rickettsiose, brucellose....)
- PCA (bactério, mycobactério, viro, parasito)
- Vitrectomie (Whipple, LNH)

- Clinique
- AAN, aCL, aB2gp1, ACC,
- ANCA, cryo, complément
- ECA, BGSA, Calcémie
- HLAB27, HLAA29

TDM thorax,
PL,
IRM SNC (BD, BBS, SUSAC, SEP, LNH....)
+/- endoscopies...

Complications

- Occlusions vasculaires
- Ischémie
- Néovascularisation pré-rétinienne
- Rubéose irienne
- OMC
- HIV
- DR

Characteristics and Visual Outcome of Patients With Retinal Vasculitis

Jennifer H. Ku, MPH; Amro Ali, MD; Eric B. Suhler, MD, MPH; Dongsook Choi, PhD; James T. Rosenbaum, MD

Arch Ophthalmol. 2012;130(10):1261-1266.

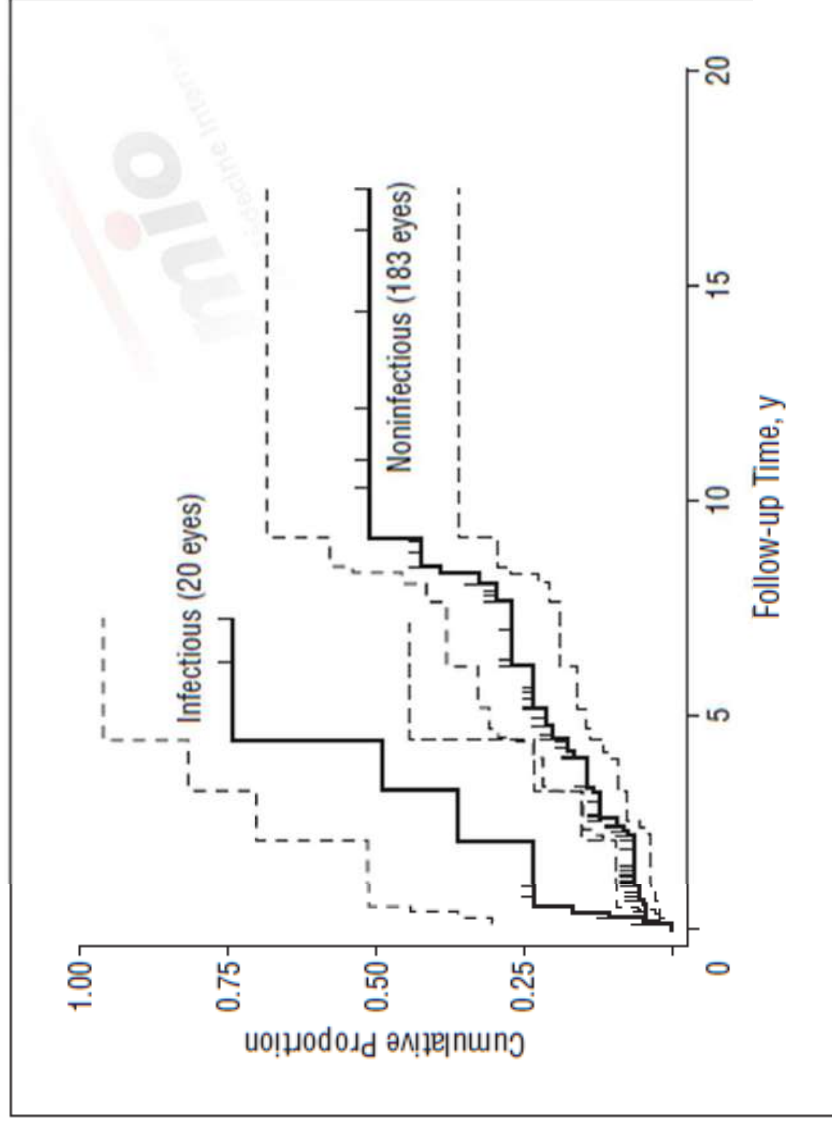


Figure 4. Kaplan-Meier curve demonstrating the cumulative proportion of eyes that experienced visual acuity improvement of 2 or more lines on the Snellen chart as a function of follow-up time by infectious vs noninfectious cause. “Infectious” denotes 20 eyes in patients with retinal vasculitis secondary to an ocular infection and “noninfectious” denotes 183 eyes with retinal vasculitis without an infectious cause. Tick marks represent cases lost to follow-up and dotted lines represent 95% confidence intervals for survival proportions.

Vascularite rétinienne Facteurs Pronostiques



1. Ischémie rétinienne+++
2. Oedeme maculaire
3. Occlusions



Risque X 6 de perte visuelle sévère
Palmer et al Eye 1996

Stratégies thérapeutiques

- Spécifiques si possible
- Symptomatiques
 - - Corticostéroïdes : syst / loc
 - - IS conventionnels
 - - Agents biologiques
 - - Anti-VEGF
 - - Photocoagulation au laser
 - - Chirurgie

What we must exclude first :

- An infectious etiology
- A primary intraocular lymphoma or other malignants conditions

Optimal goals of therapy

- Propose the best treatment modality adapted to each clinical situation
- Achieve long-term control of intraocular inflammation
- Limit the use of systemic corticosteroids whenever possible or taper to 5 mg/d prednisone
- Limit side effects of local or systemic therapies

Traitement des uvéites

< 2000

Azathioprine

MMF

Cyclophosphamide

Methotrexate

Cyclosporine

2000

- IFN α
- Infliximab
- Adalimumab
- Anti-IL1, anti-RIL6....

CORTICOIDES

Saadoun D, et al *Autoimmun Rev.* 2013 May;12(7):774-83

Aggressive long-lasting anti-inflammatory and IS strategies

+



-

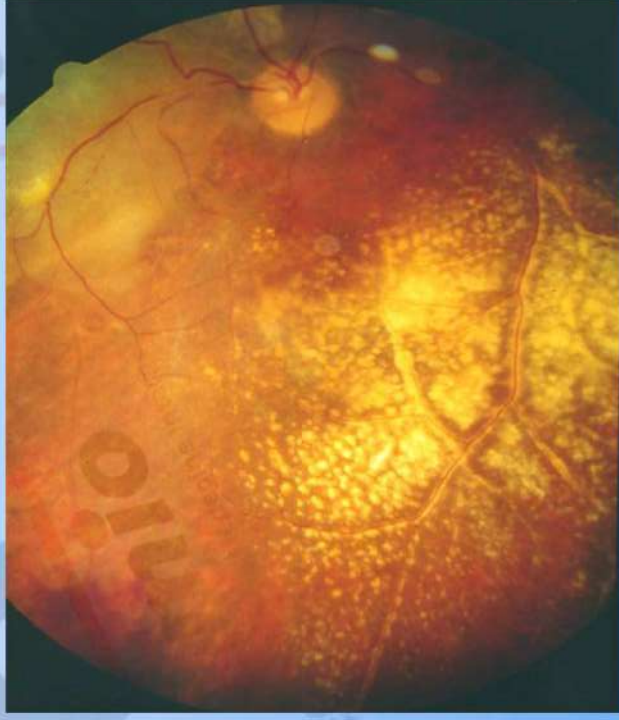
- Behçet disease
- Multifocal choroiditis and panuveitis
- Non TB serpiginous choroiditis
- Birdshot
- JIA-associated uveitis
- Idiopathic posterior uveitis / retinal vasculitis
- Sarcoidosis (37% vasculite, ischémie <4%)

**Vascularite rétinienne
Facteurs mauvais pronostiques
Et/ ou Behçet**

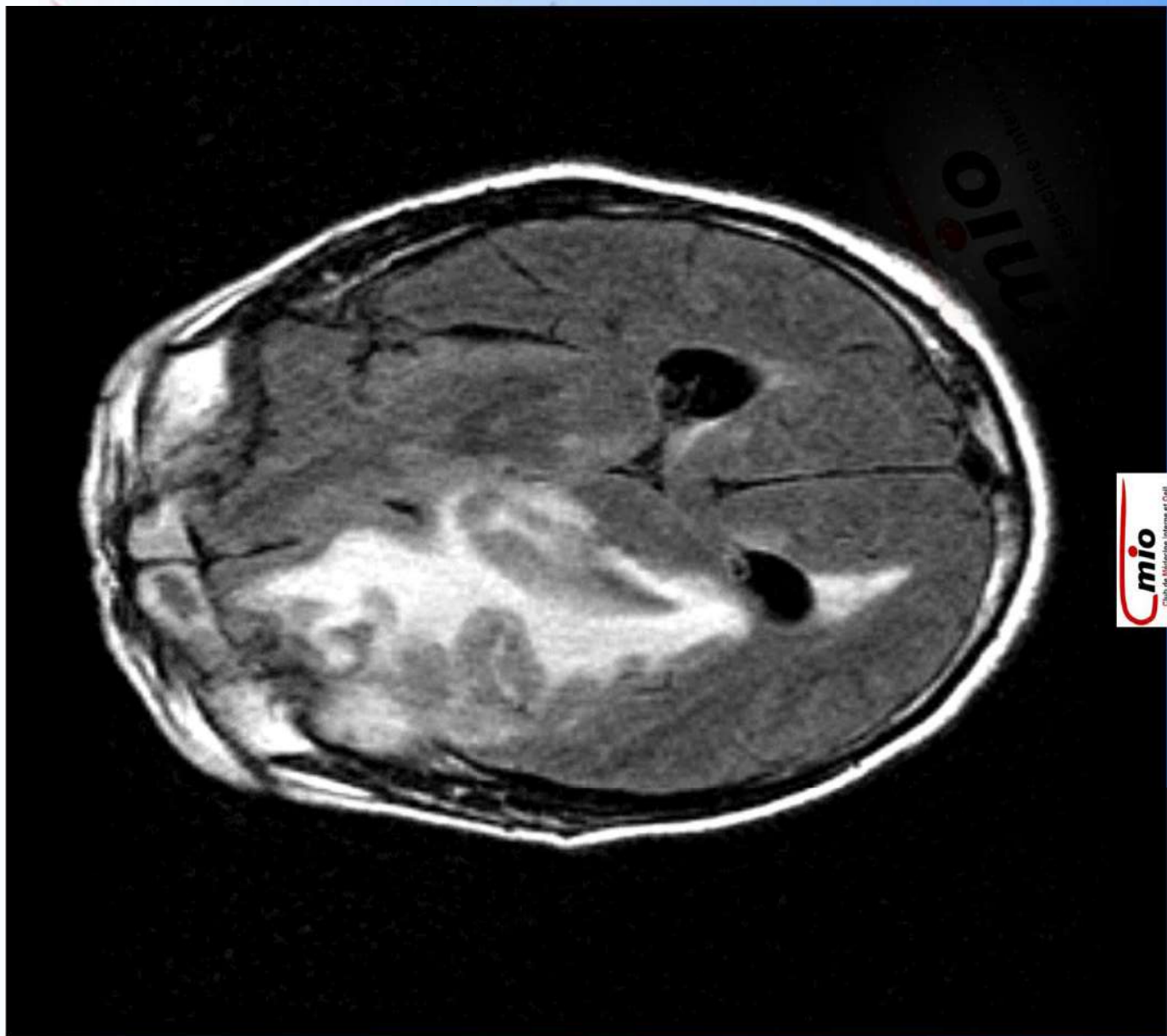
1. Corticoïdes systémiques et/ou locaux
2. Immunosuppresseurs (AZA, MTX..)

1. Anti TNF, corticoïdes forte dose, AZA
 2. IFN α , corticoïdes forte dose
- +/- Laser, anti-VEGF, Chirurgie, Aspegic

Anti-IL1, Anti-RIL6...



Oeil



Maladies de système

Diagnosis

- International Study Group for BD (1990)
- Recurring oral ulcerations (aphthous herpetiform) at least 3 times in one year
- In addition, patient must also meet two of the following :
 - - Recurring genital ulcerations
 - - Eye lesions (uveitis, retinal vasculitis) observed by a physician (ophthalmologist)
 - - Skin lesions (erythema nodosum, pseudofolliculitis, papulopustular lesions, acneiform nodules) in adult patient not on corticosteroids
- positive “pathergy test” read by a physician within 24-48 hours testing

Sensitivity 0.95 / Specificity 1

~~HLA B51~~

Mr C 26 ans
Vasculite rétinienne OD 1/10eme
AB, PF



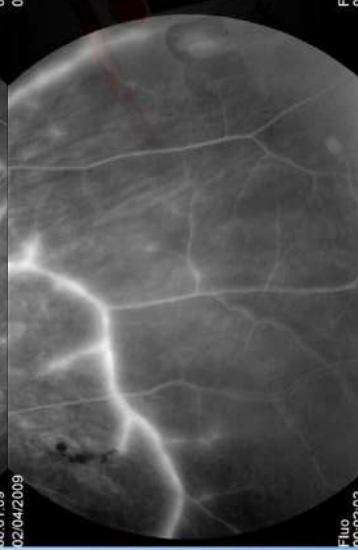
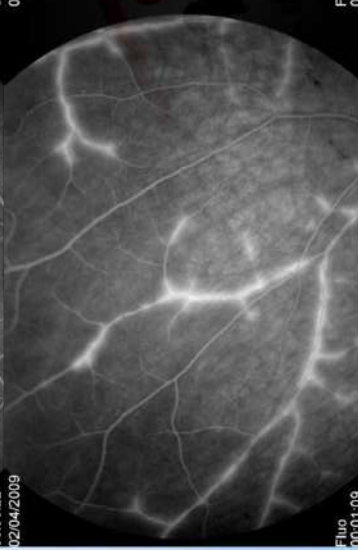
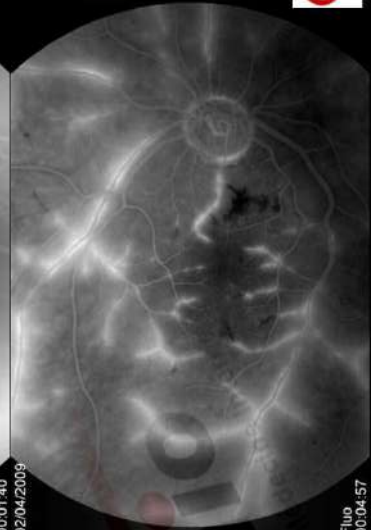
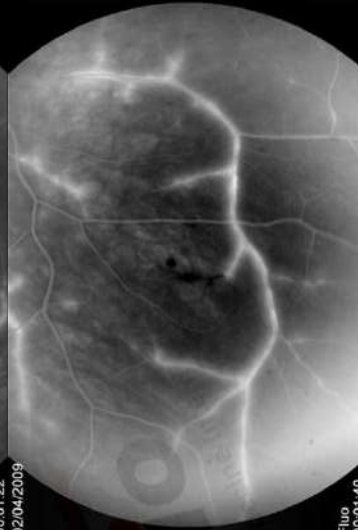
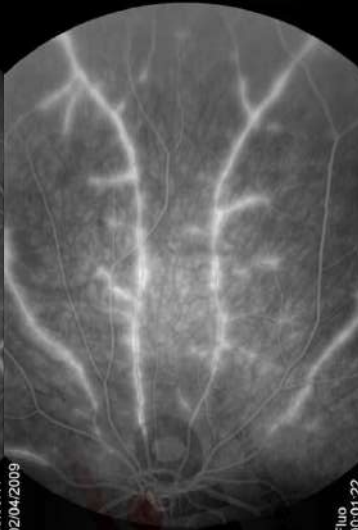
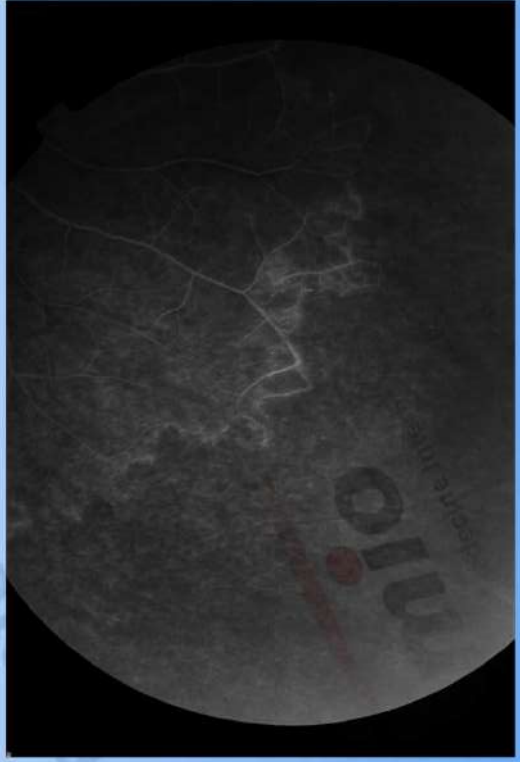
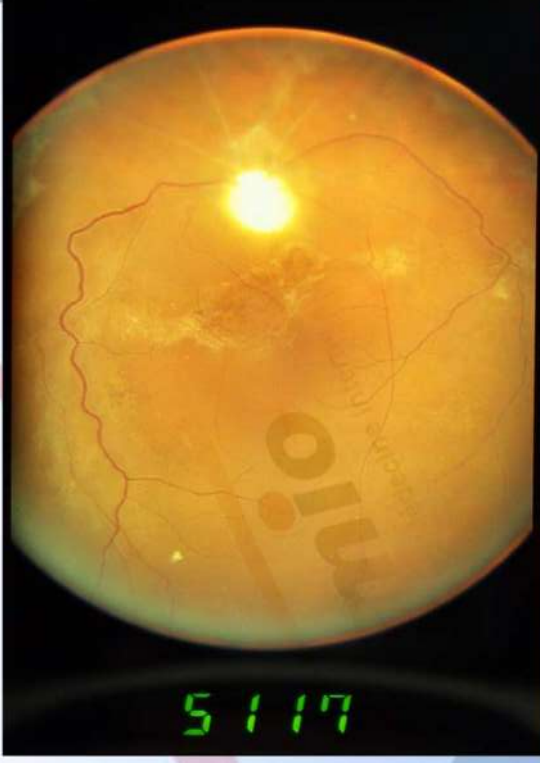
Humira (40mg/15j), Cx, AZA pt 3 mois
Rémission 9/10eme OG



Arret de l' Humira
AZA et CX faible dose
Rechute uvéite OG 4/10eme à M6

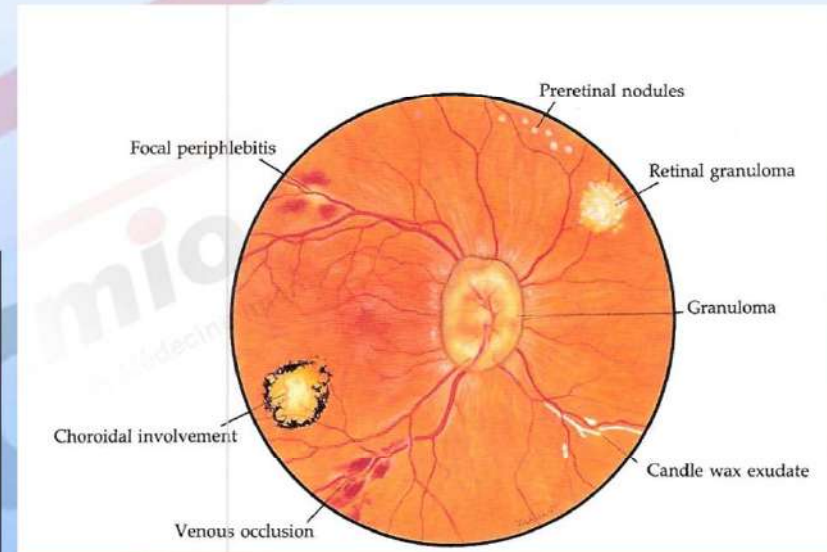
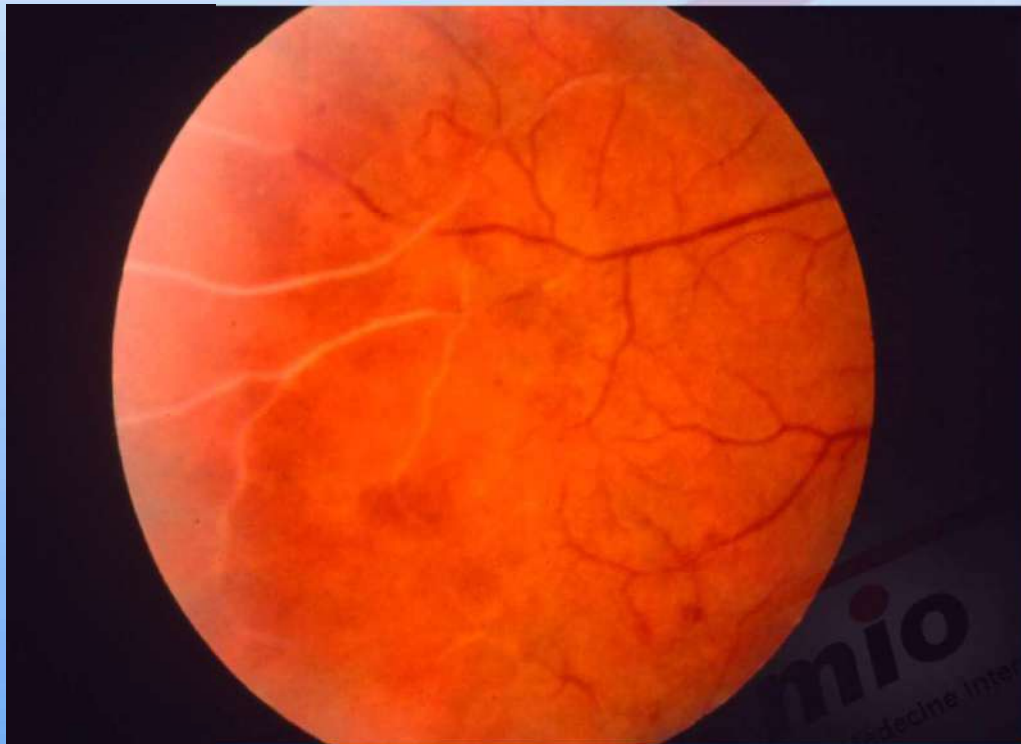


Arrêt AZA, IFNa 3M x3/semSC
Rémission



Segmental and/or nodular periphlebitis (\pm candle-wax drippings)
and/or macroaneurism in an inflamed eye

20 à 40% des cas



**Mme D 48 ans, Sarcoidose histo + (Biopsie Bronche)
Atteinte oculaire (vasculite rétinienne veineuse ischémique),
Adénopathies médiastinales, granulome bronchique, QF neg**



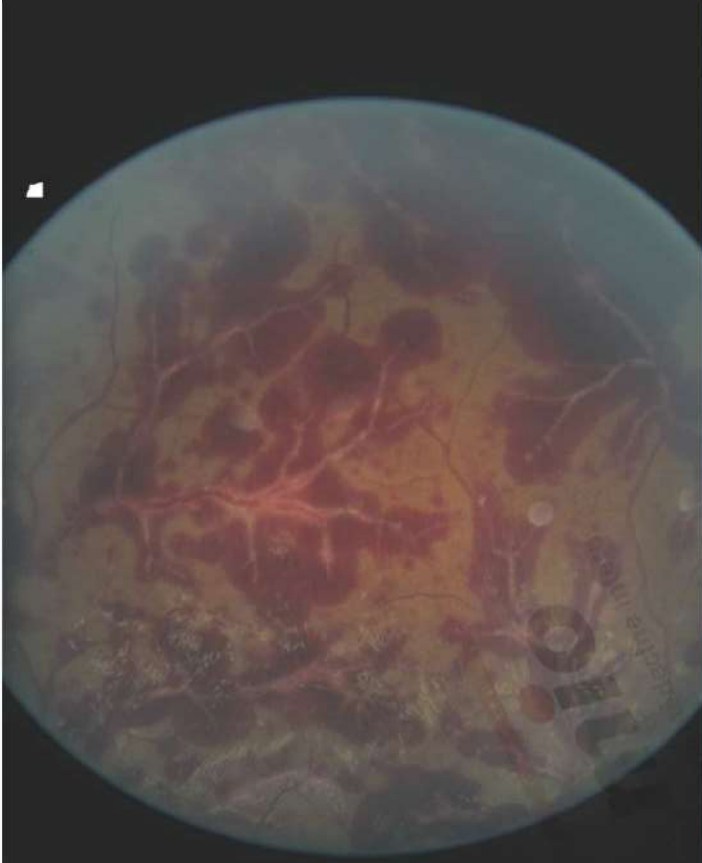
**Corticoides plus AZA
Réponse partielle**



Corticodépendance, Apparition secondaire OM
Augmentation Cx, MMF

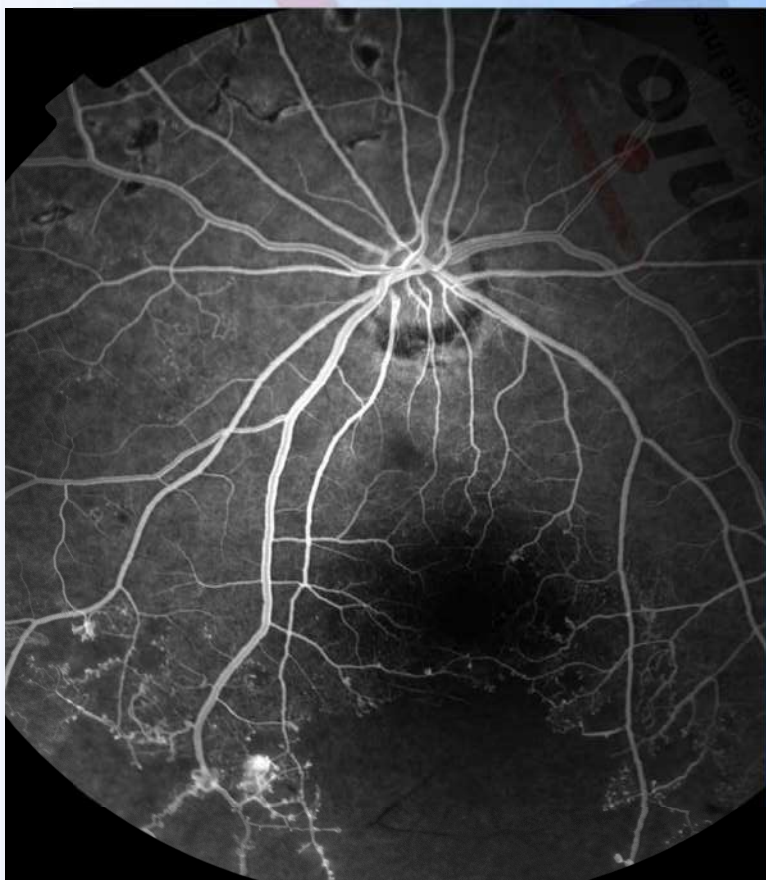
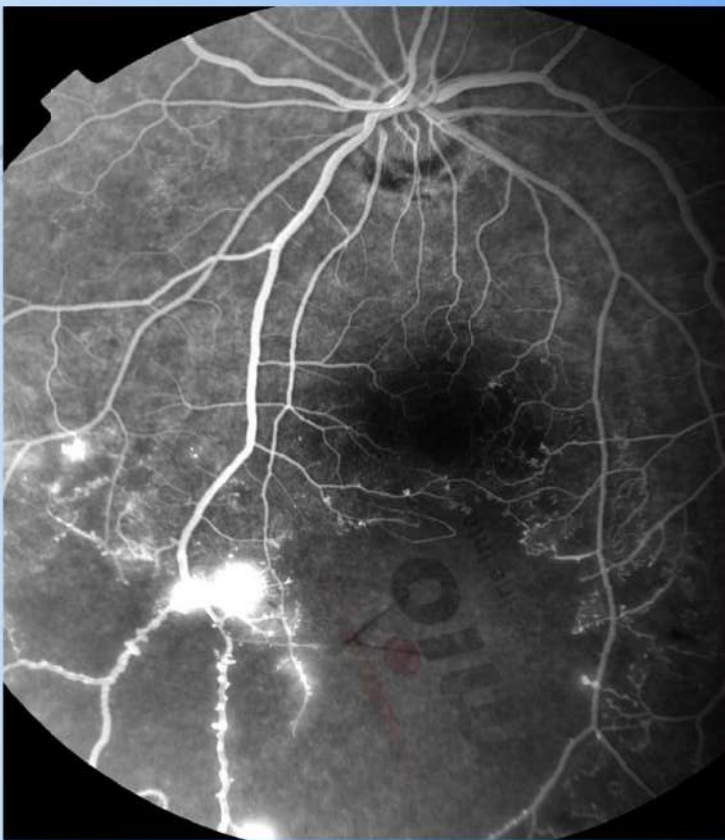


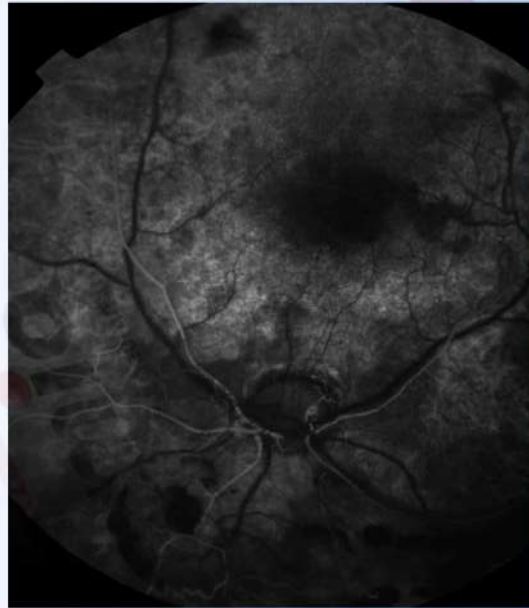
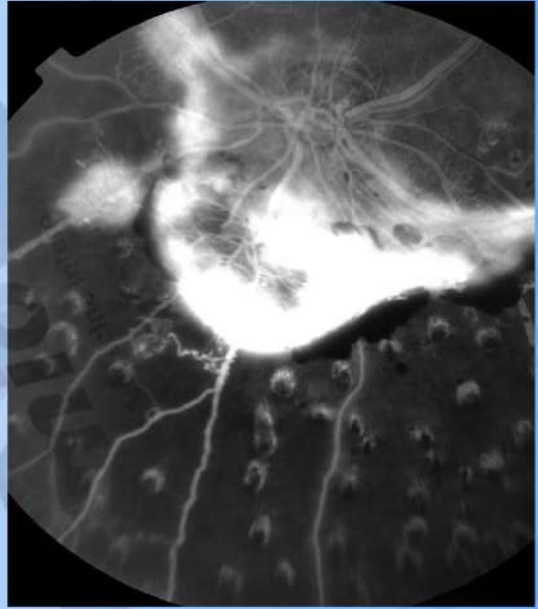
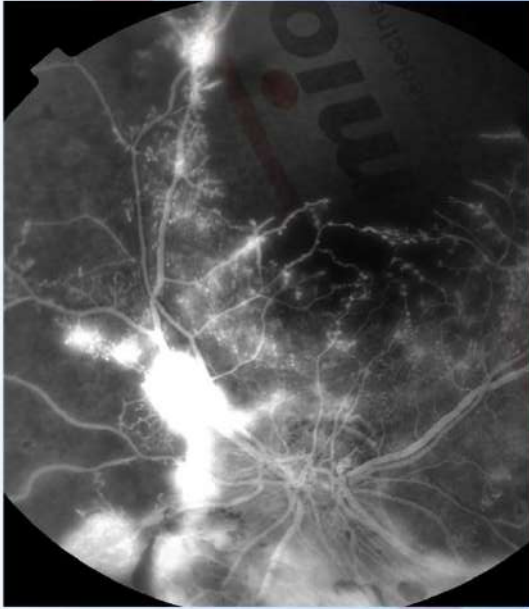
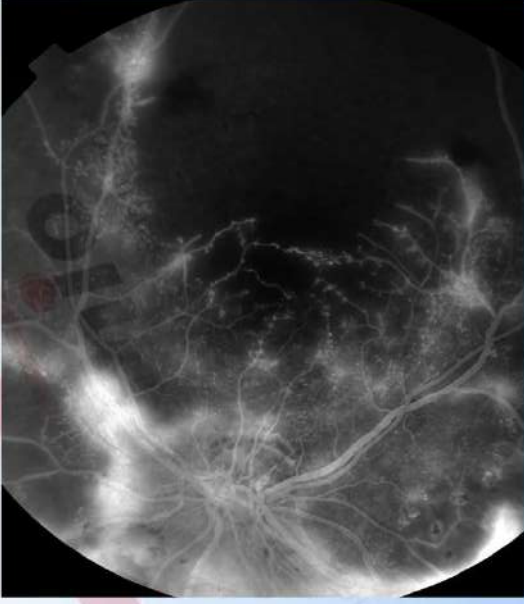
Echec MMF
Passage aux anti-TNF (Remicade)

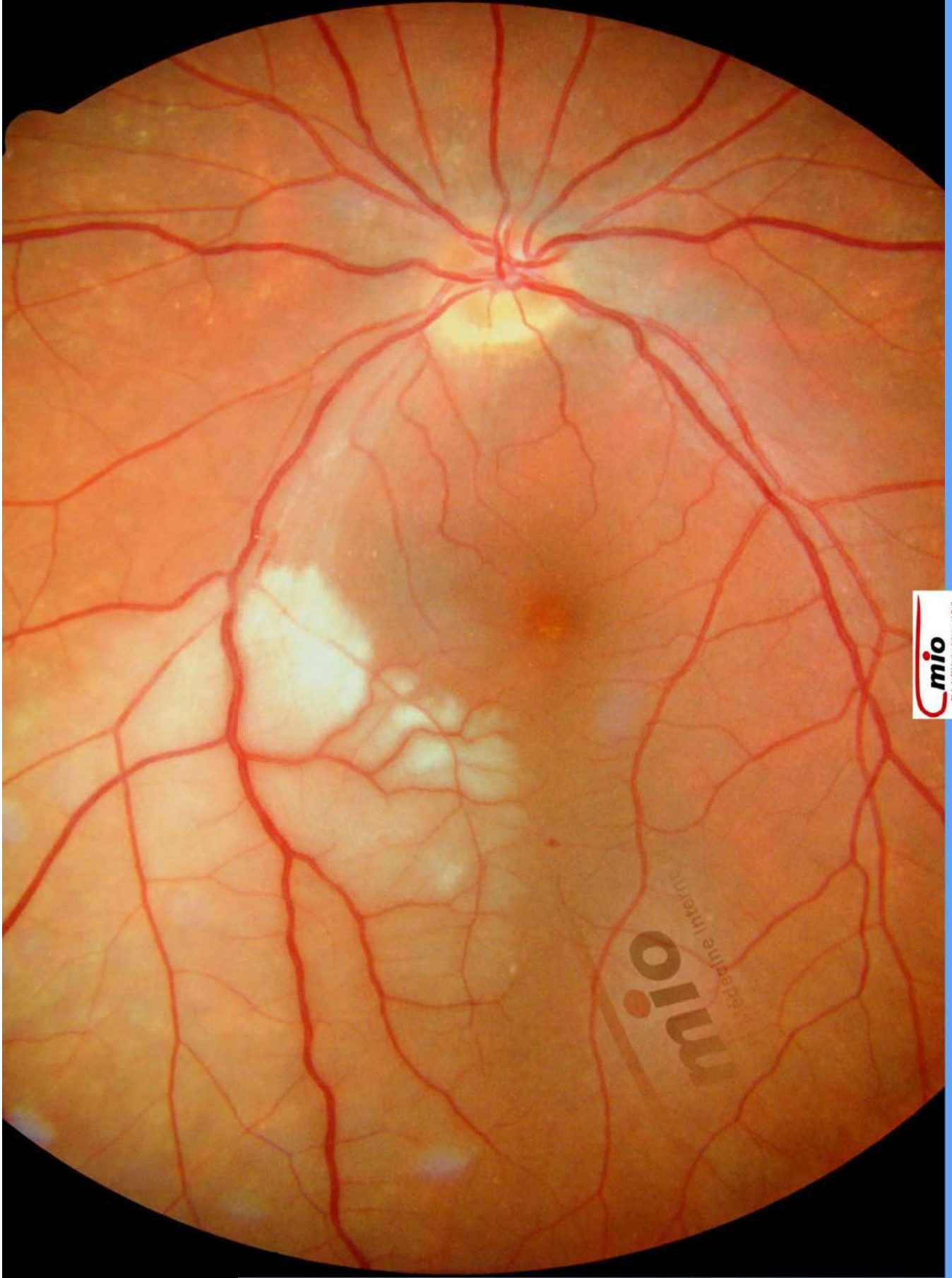


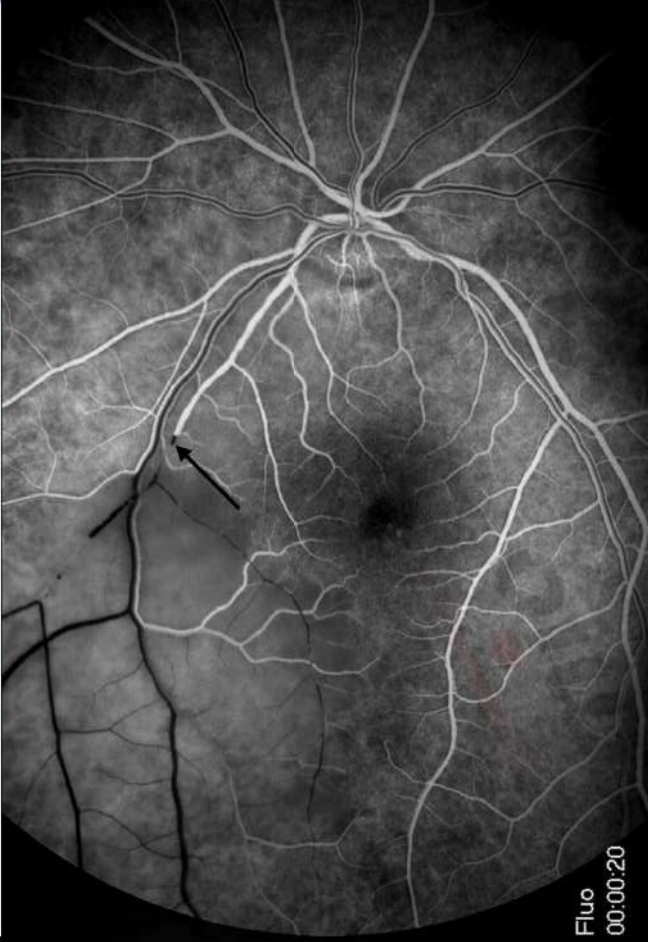


Club de Médecins
mio





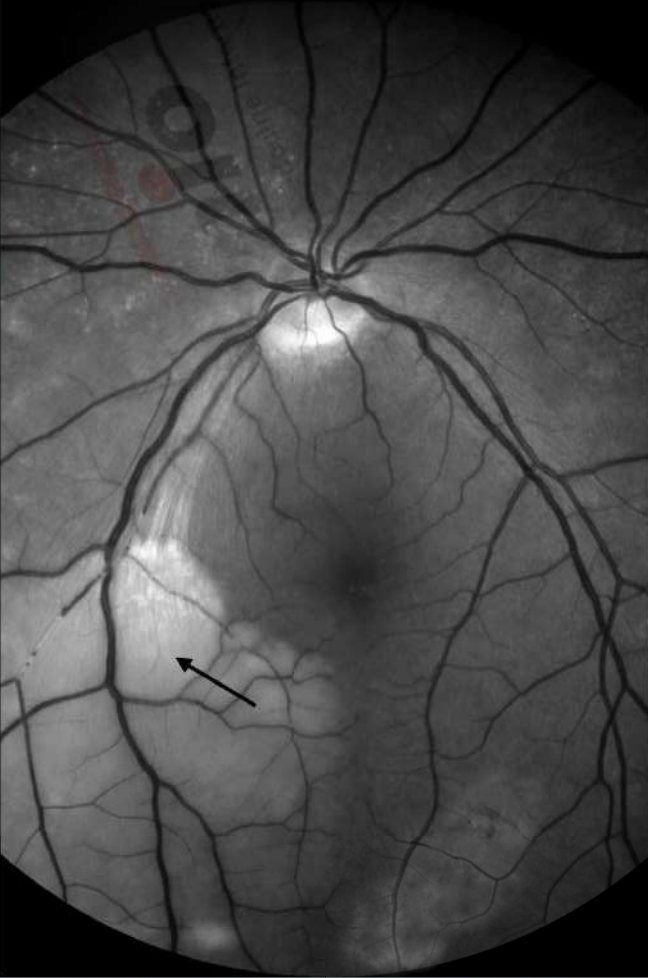




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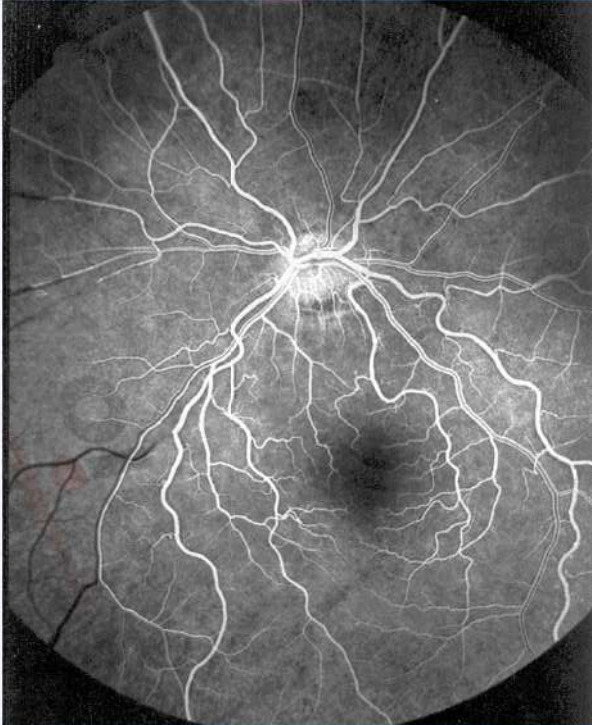
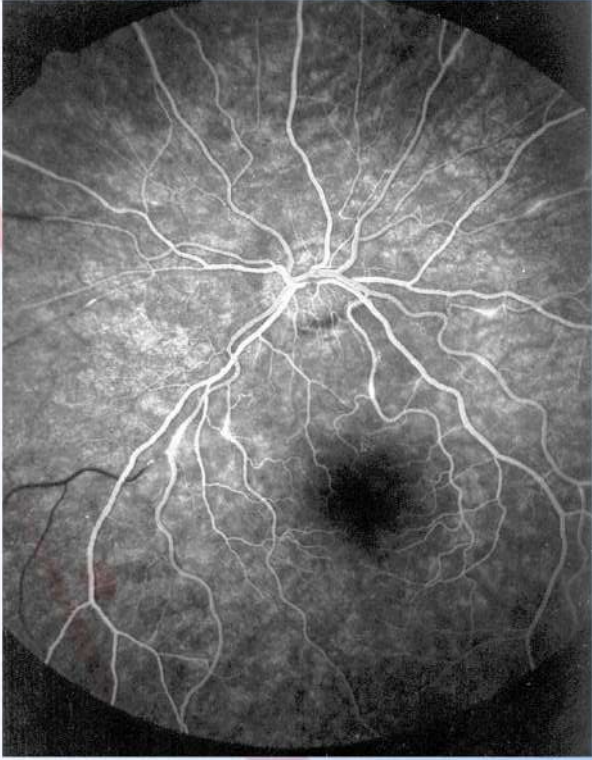


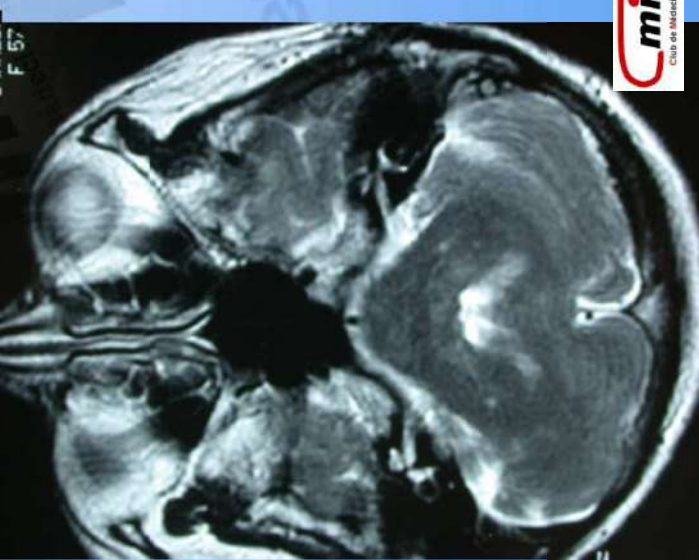
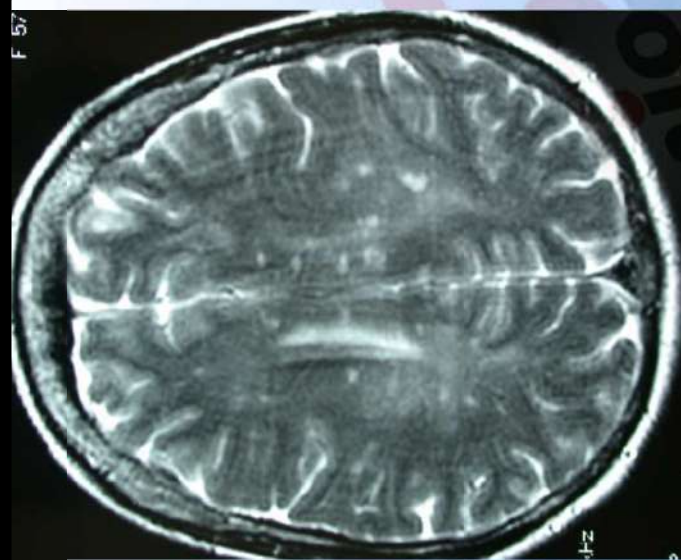
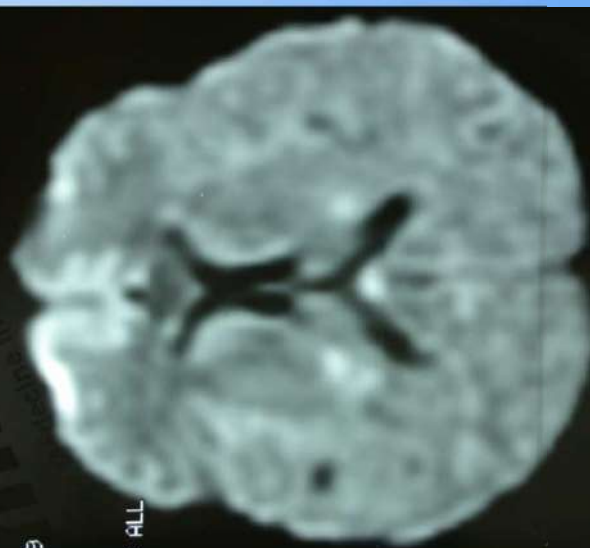
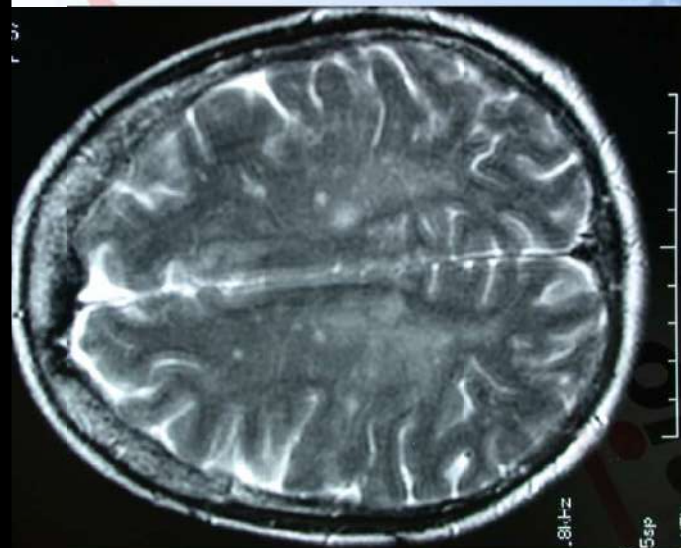
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Syndrome de Susac / SICRET

- • John O. Susac
- • 1975
- • 2 cas en 3 semaines
- • Microangiopathie cérébrale et rétinienne (1979)
- • Initialement considéré comme une angéite granulomateuse (mais occlusions artérielles rétiniennes et surdité)
- • Microangiopathie (artéριοles < 100μm) d'origine immunologique
- • Triade : encéphalopathie / surdité-vertiges / occlusions artérielles rétiniennes





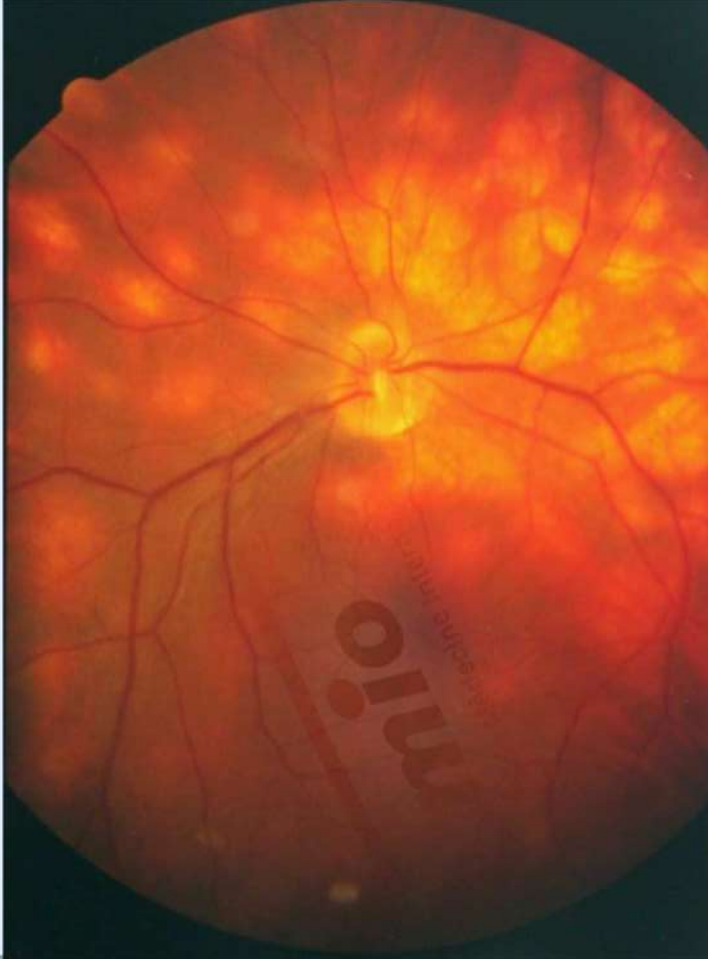
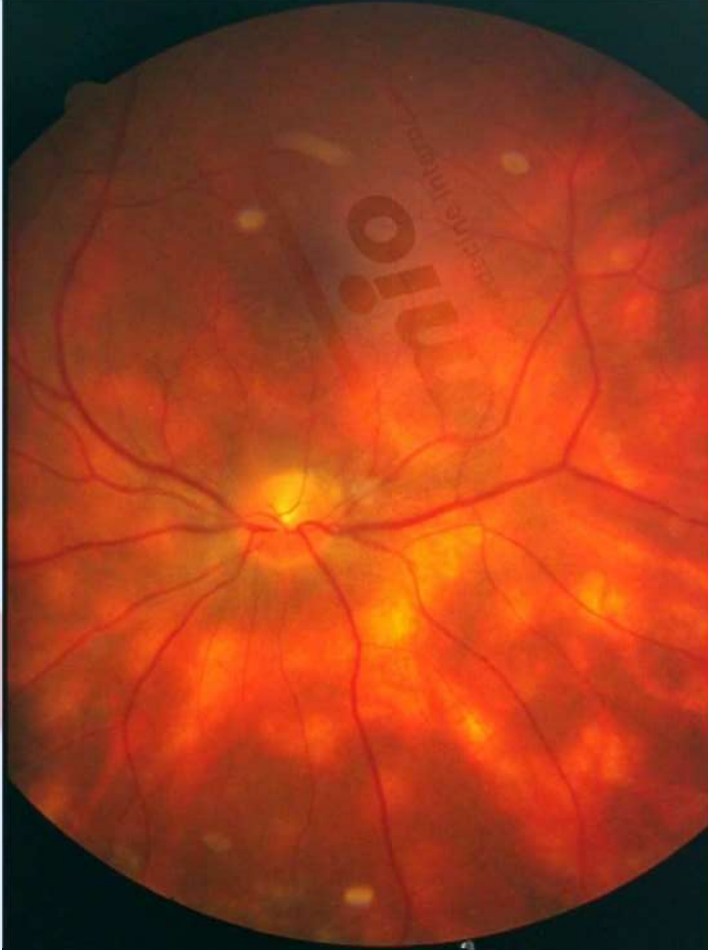
Mme B 28 ans
Suivie pour SEP
Occlusions artériolaires rétinienne OD, vasculite veineuse
surdité de perception brusque

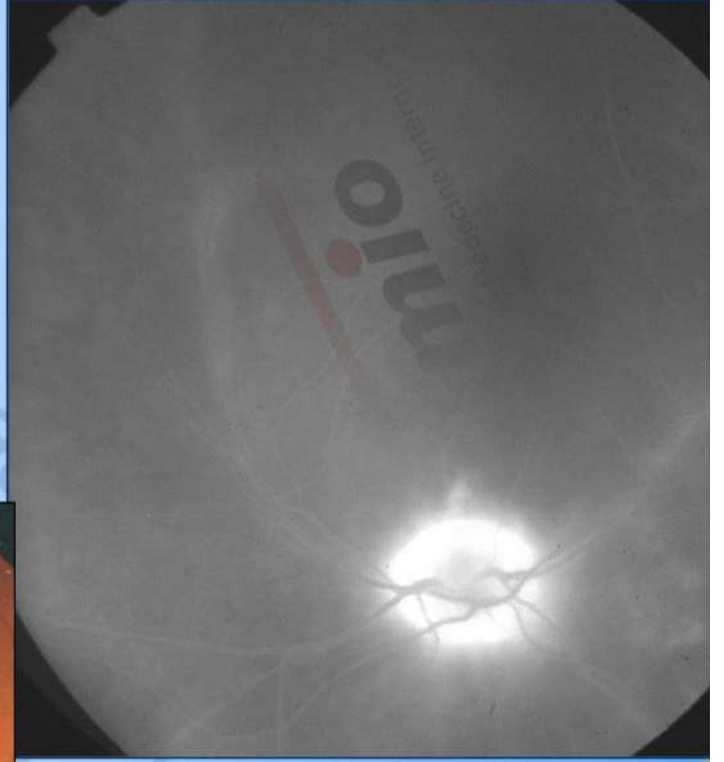
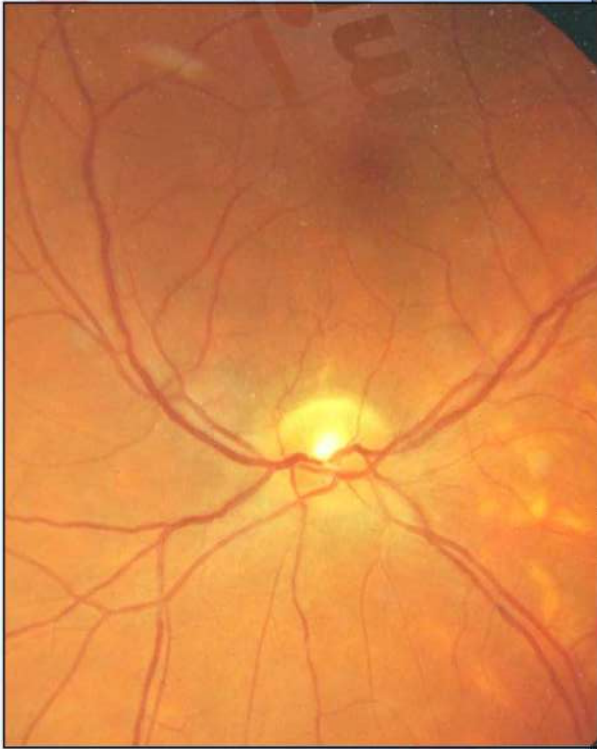
Relecture IRM SNC compatible avec SUSAC

AZA et CX forte doses et Aspegic

Surdité stable, amélioration oculaire

Oculaires pures et NI





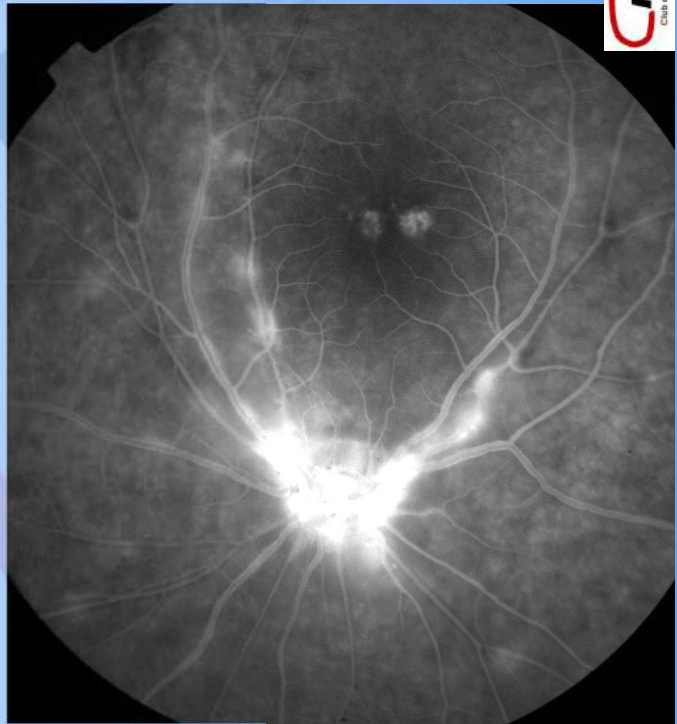
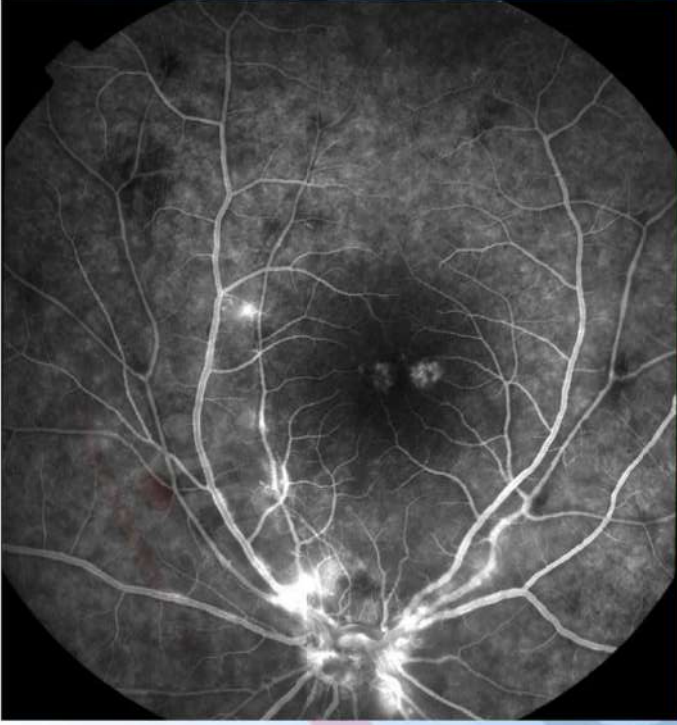
Mme D 50 ans
Rétinochoroidopathie de Birdshot



Corticoides et Cellcept
Bonne réponse



Rechute à la décroissance de corticoides
OMC
IFNa 3M x 3/sem SC
Bonne réponse



IRVAN

- *Idiopathic Retinal Vasculitis*
- *Aneurysms and Neuroretinitis*
- Maladie rare
- 3 critères majeurs : VR, NR, dilatations anévrysmales aux bifurcations artérielles
- 3 critères mineurs : Non perfusion périph, NVR, exsudats maculaires
- Pronostic réservé au long cours
- Traitement : PPR et anti-VEGF

Idiopathic Retinitis, Vasculitis, Aneurysms, and Neuroretinitis (IRVAN)

New Observations and a Proposed Staging System

Michael A. Samuel, MD,¹ Robert A. Equi, MD,² Tom S. Chang, MD, FRCSC,³ William Mielier, MD,⁴ Lee M. Jampol, MD,⁵ Dawn Hay, RN,⁶ Lawrence A. Yannuzzi, MD⁷

Purpose: To review the clinical features, disease progression, and effects of treatment on idiopathic retinitis, vasculitis, aneurysms, and neuroretinitis (IRVAN).

Design: Retrospective interventional case series.

Participants: Ten patients with IRVAN originally reported in 1995 and 12 additional patients identified since the original series.

Intervention: Patients in the series had testing that may have included fluorescein angiography, indocyanine green angiography, and systemic evaluation. Treatments included panretinal laser photocoagulation, cryotherapy, vitrectomy surgery, and injection of pericocular or intravitreal steroids.

Main Outcome Measures: Initial visual acuity (VA), initial stage at diagnosis, clinical course, surgical intervention, final VA, and complications of disease.

Results: A total of 44 eyes of 22 patients were studied; 9 eyes had reached stage 1 or 2 disease at last follow-up, 7 had reached stage 3, and 12 had reached stage 4 or 5. At the time of last follow-up, 14 eyes had maintained 20/20 vision, 15 had between 20/40 and 20/200 vision, and 9 had 20/300 vision or worse. Later stages of retinal ischemia are associated with worse VA. Thirty-two of 38 followed eyes were treated. Twenty-five were treated initially with panretinal laser photocoagulation. The clinical course of each eye after initiation of panretinal laser photocoagulation was evaluated with respect to the final VA and stage of ischemic retinopathy at the initiation of treatment. Panretinal laser photocoagulation was initiated in 3 eyes at stage 2, 16 at stage 3, 5 at stage 4, and 1 at stage 5. Seven eyes underwent grid laser retinal photocoagulation of the macula for macular edema.

Conclusions: Idiopathic retinitis, vasculitis, aneurysms, and neuroretinitis is an isolated retinal vascular disease that can progress rapidly to severe vision loss due to ischemic sequelae despite treatment with panretinal laser photocoagulation. Based on our review of the largest cohort of IRVAN patients, early panretinal laser photocoagulation should be considered when angiographic evidence of widespread retinal nonperfusion is present, and before (or shortly after) the development of neovascularization. A functional staging system is proposed to improve treatment paradigms. *Ophthalmology* 2007;114:1526-1529 © 2007 by the American Academy of Ophthalmology.



The diagnosis of idiopathic retinitis, vasculitis, aneurysms, and neuroretinitis (IRVAN) is based on a constellation of clinical features. Three major criteria (retinal vasculitis, aneurysmal dilations at arterial bifurcations, and neuroretinitis) and 3 minor criteria (peripheral capillary nonperfu-

sion, retinal neovascularization, and macular exudation) are used to diagnose IRVAN.¹ Although IRVAN was believed initially to be a benign self-limiting condition,

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⁶ Department of Ophthalmology, University of British Columbia, Vancouver, Canada.

⁷ Vitreous-Retina-Macula Consultants of New York, New York, New York.

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The authors have no conflicting or financial relationship in anything discussed.

Reprint requests to Tom Chang, MD, FRCSC, Retina Institute of California, 300 South Fairmount Avenue, Suite 312, Pasadena, CA 91105. E-mail: tchang@retinainstitute.com.

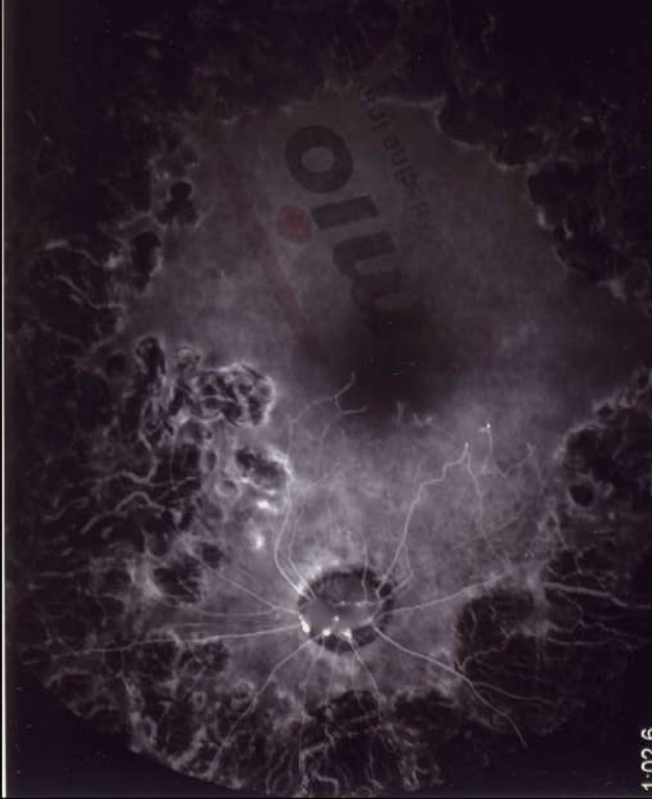
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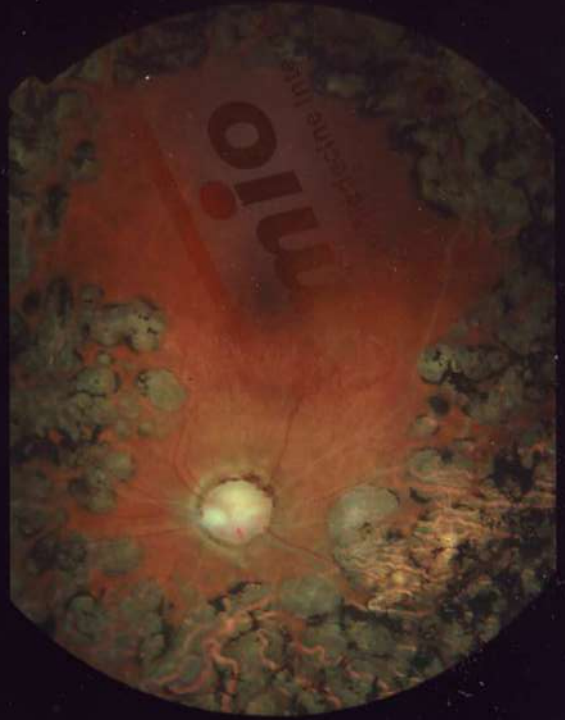
ISSN 0161-6420/07/\$-see front matter
doi:10.1016/j.ophtha.2006.11.014

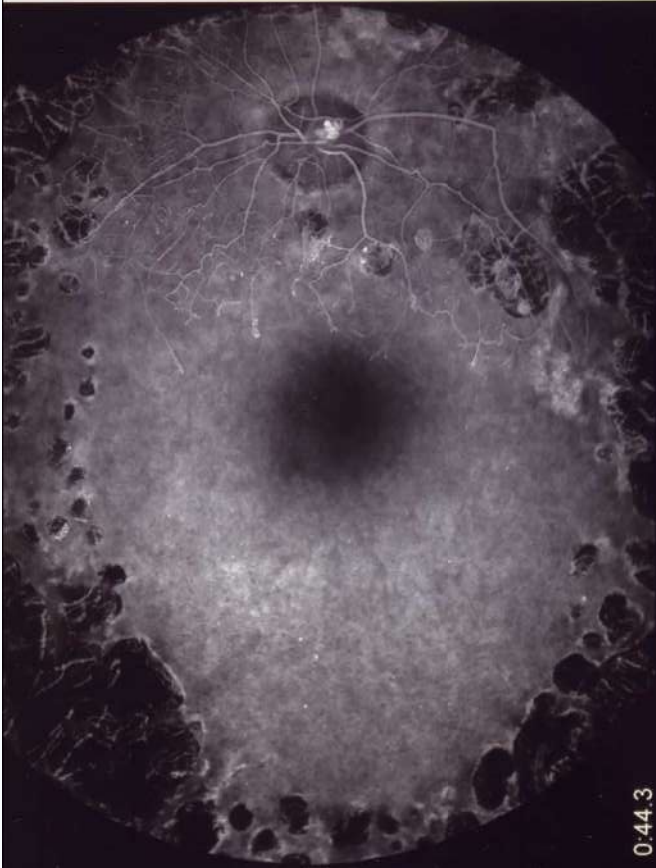


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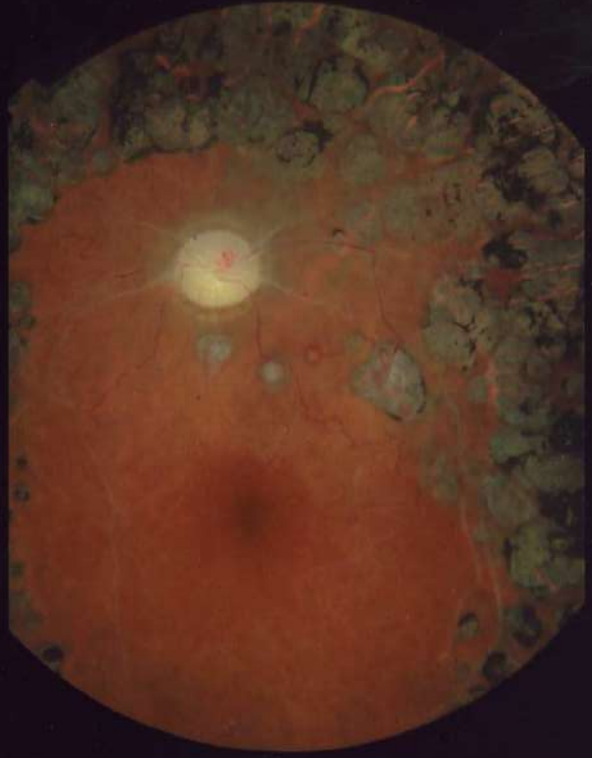


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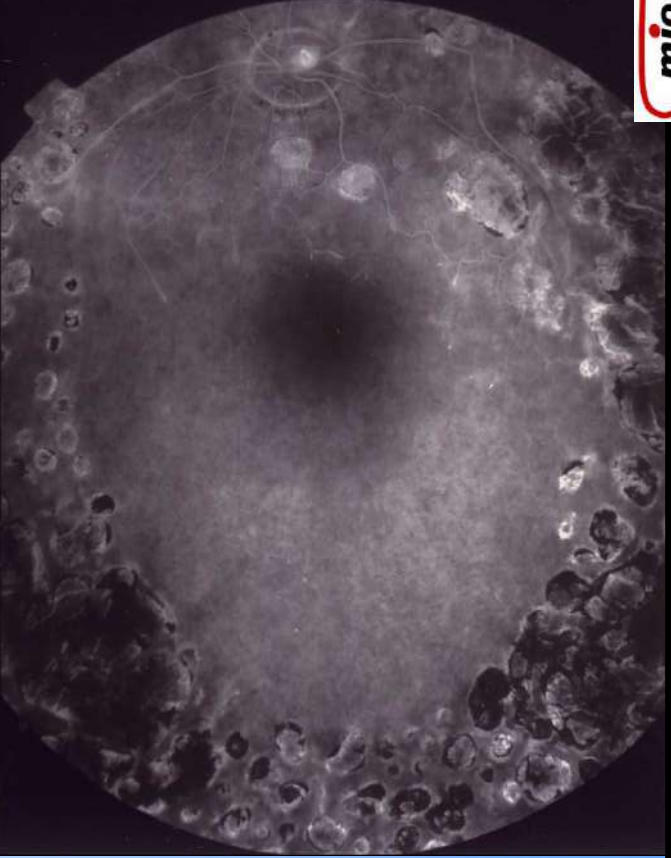




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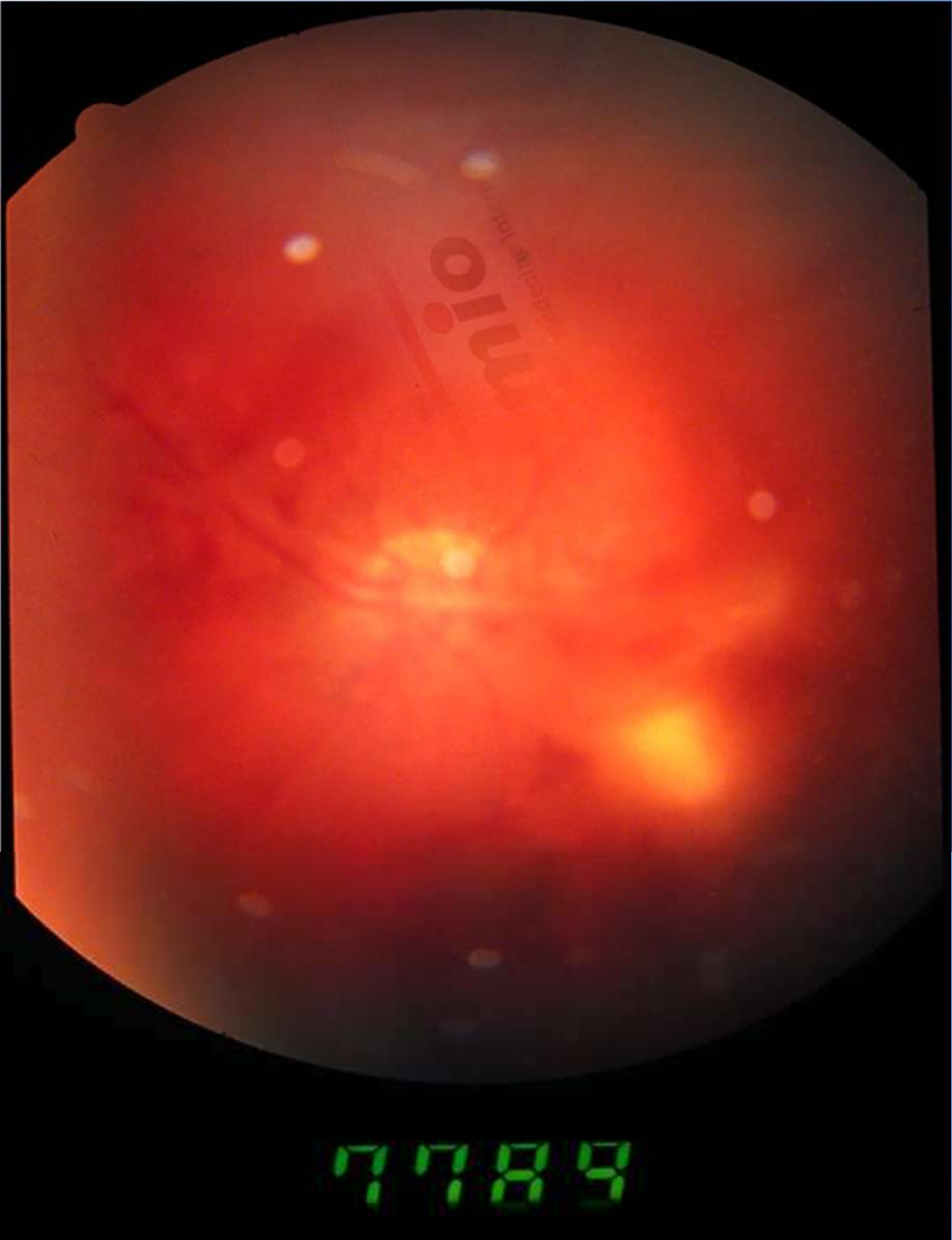


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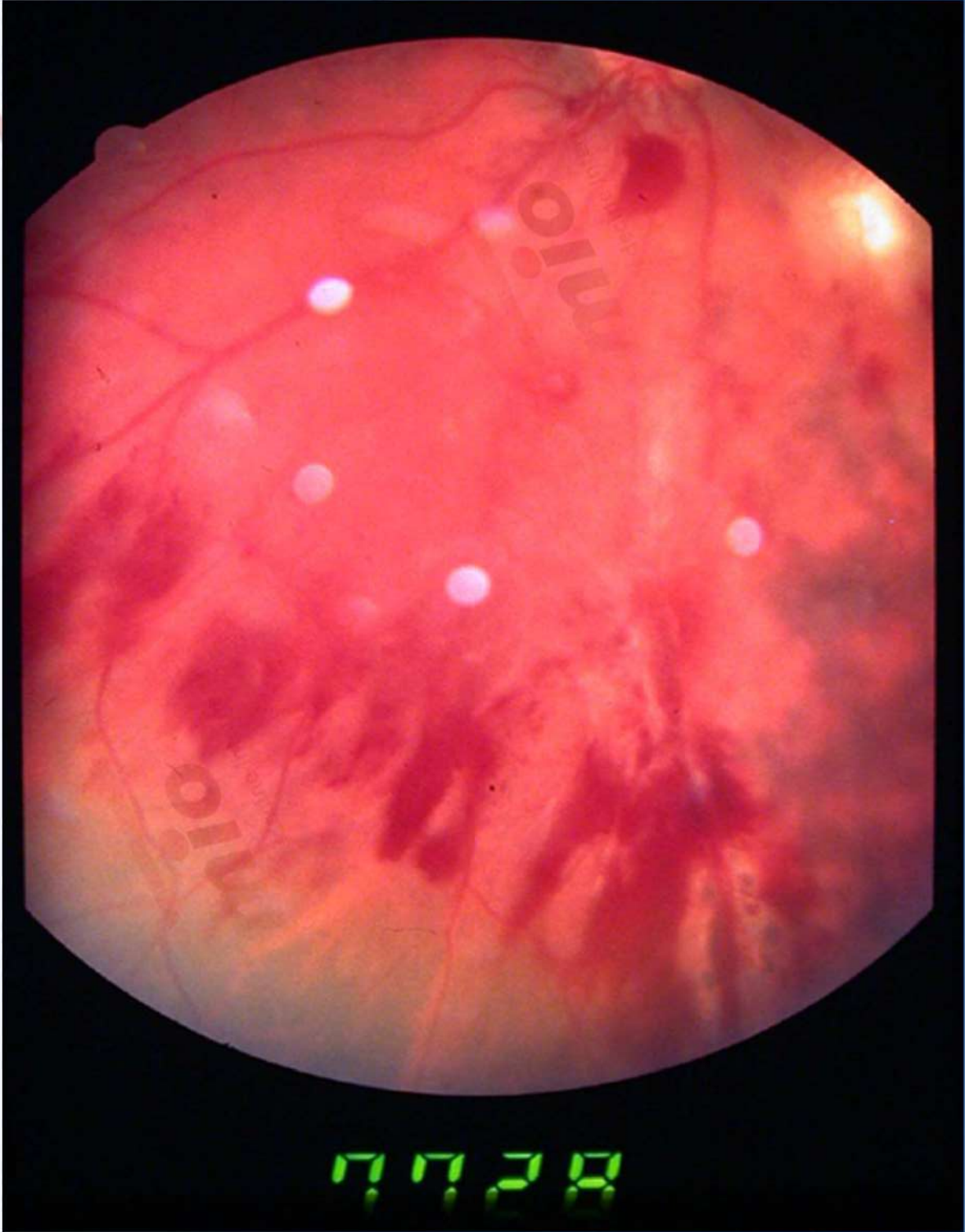


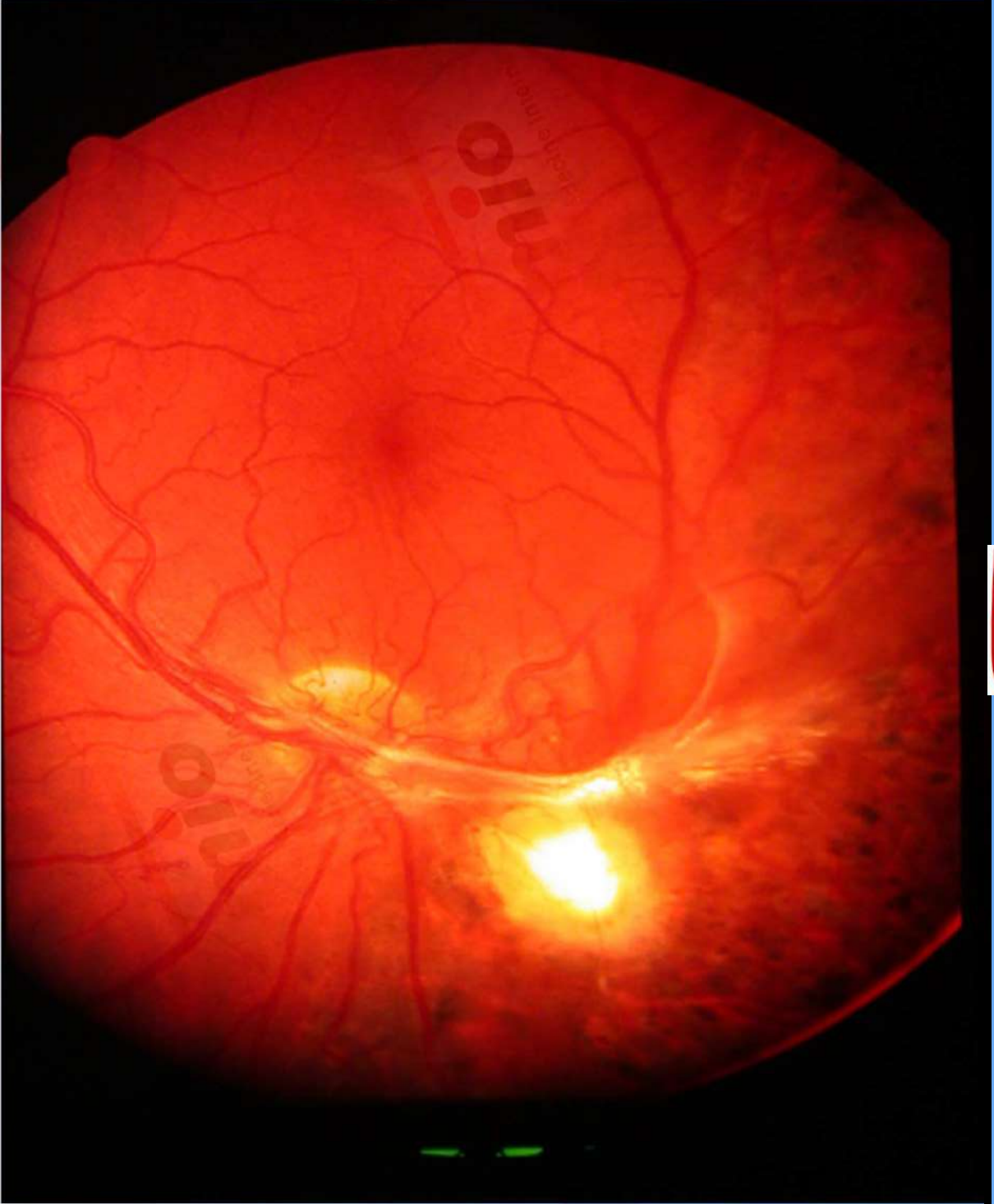
Infectieuses

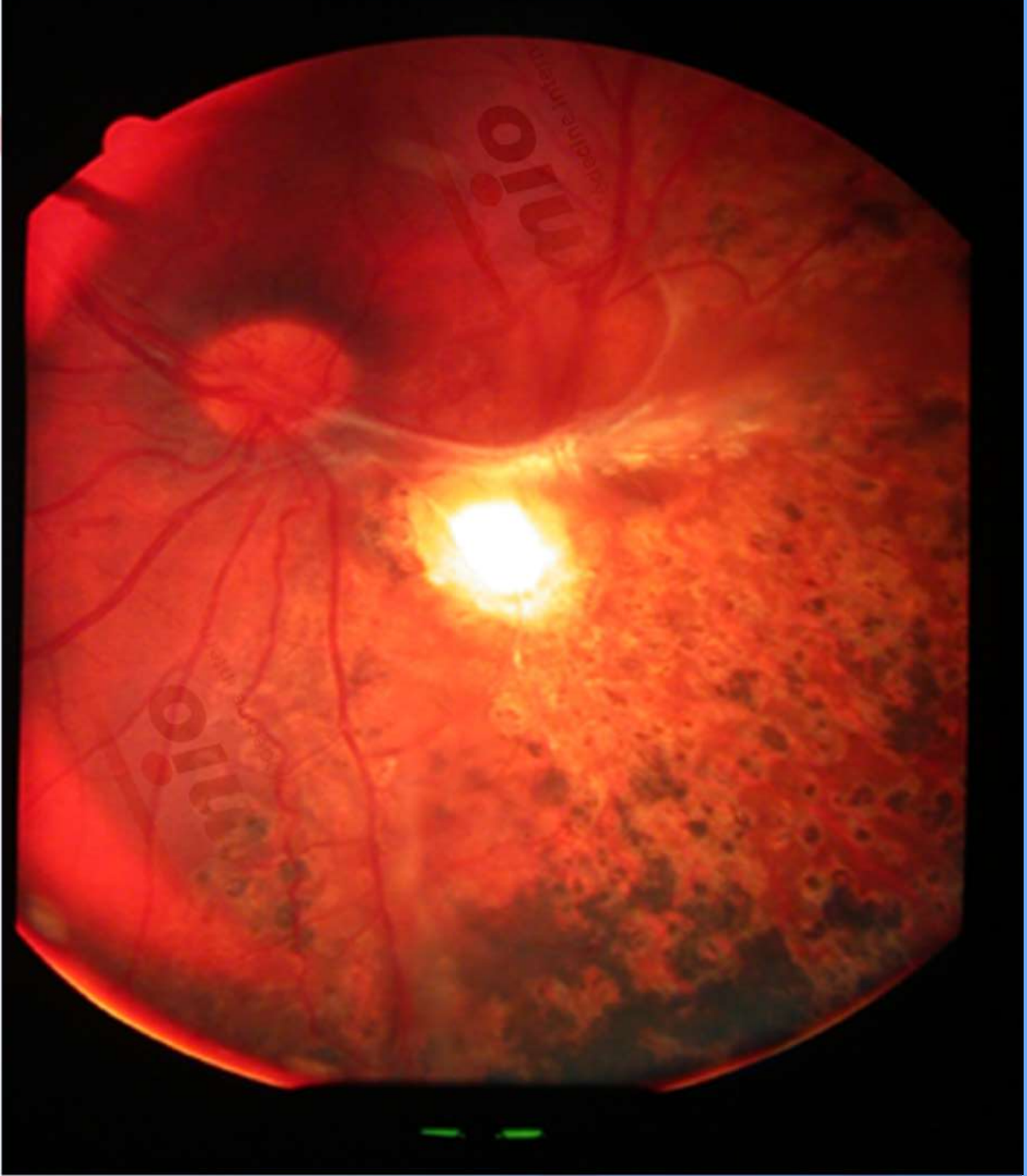
- ● Syphilis
- ● Tuberculose
- ● Lyme
- ● Whipple
- ● Griffes du chat
- ● Brucellose
- ● Leptospirose
- ● Viroses

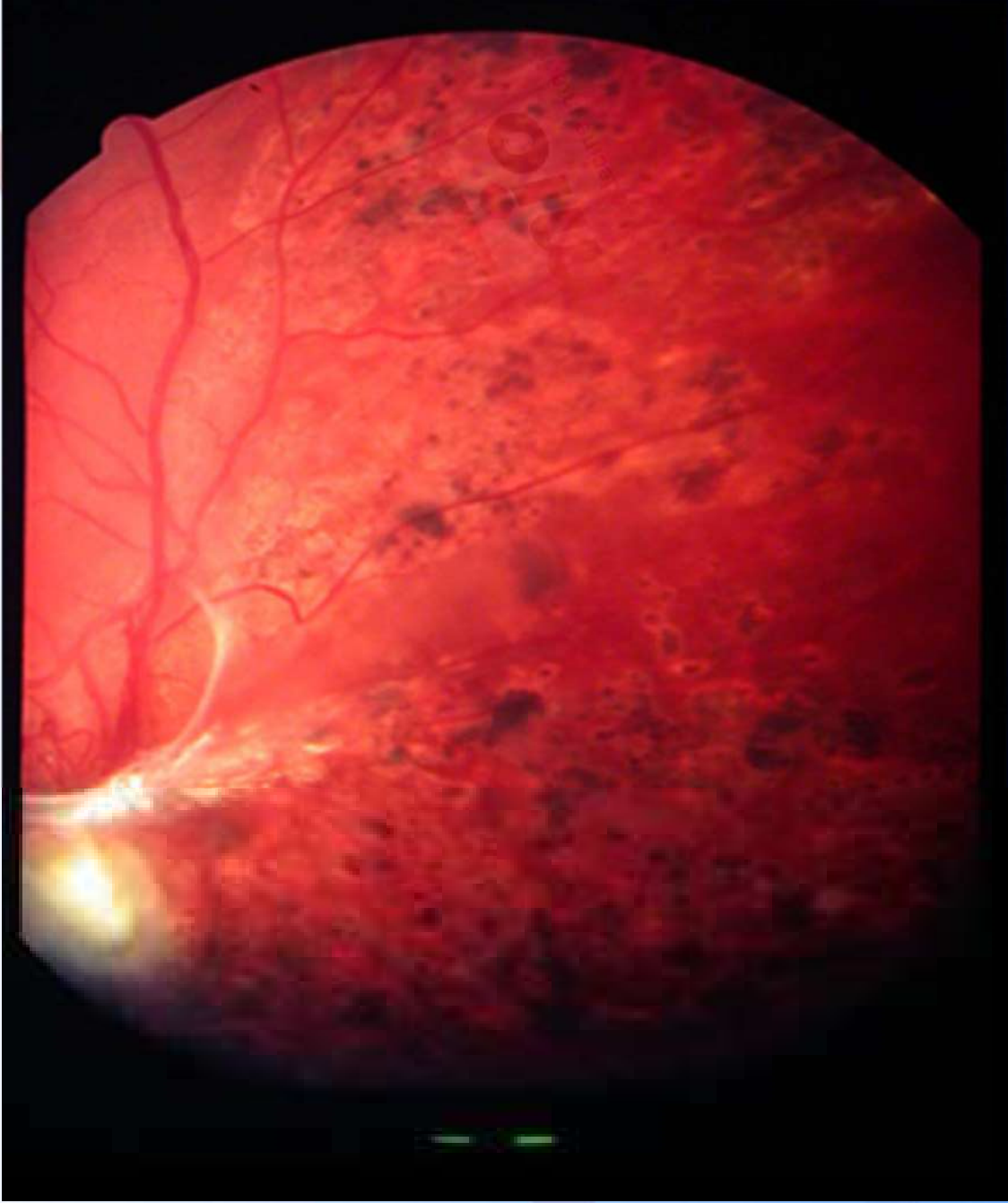




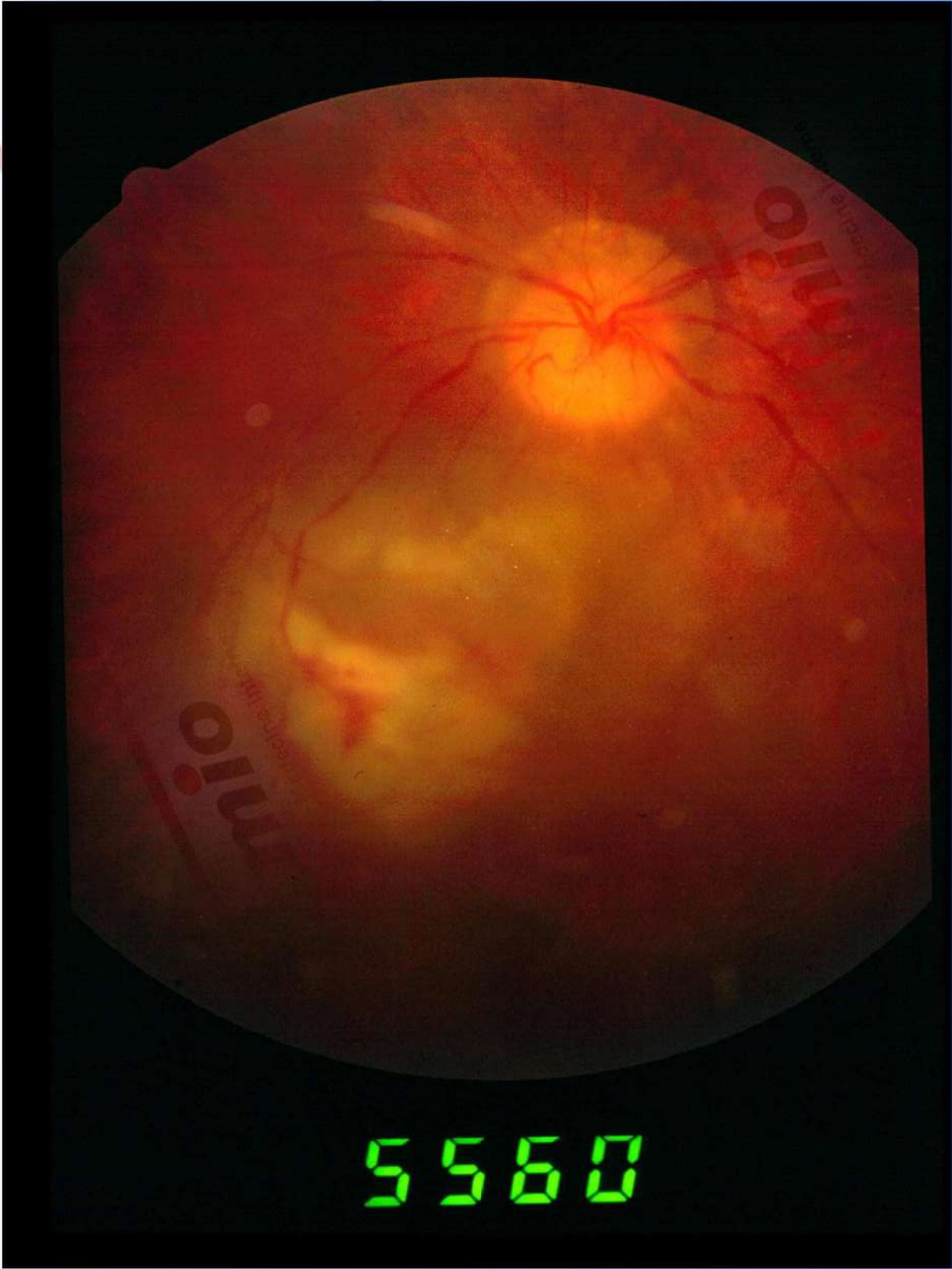




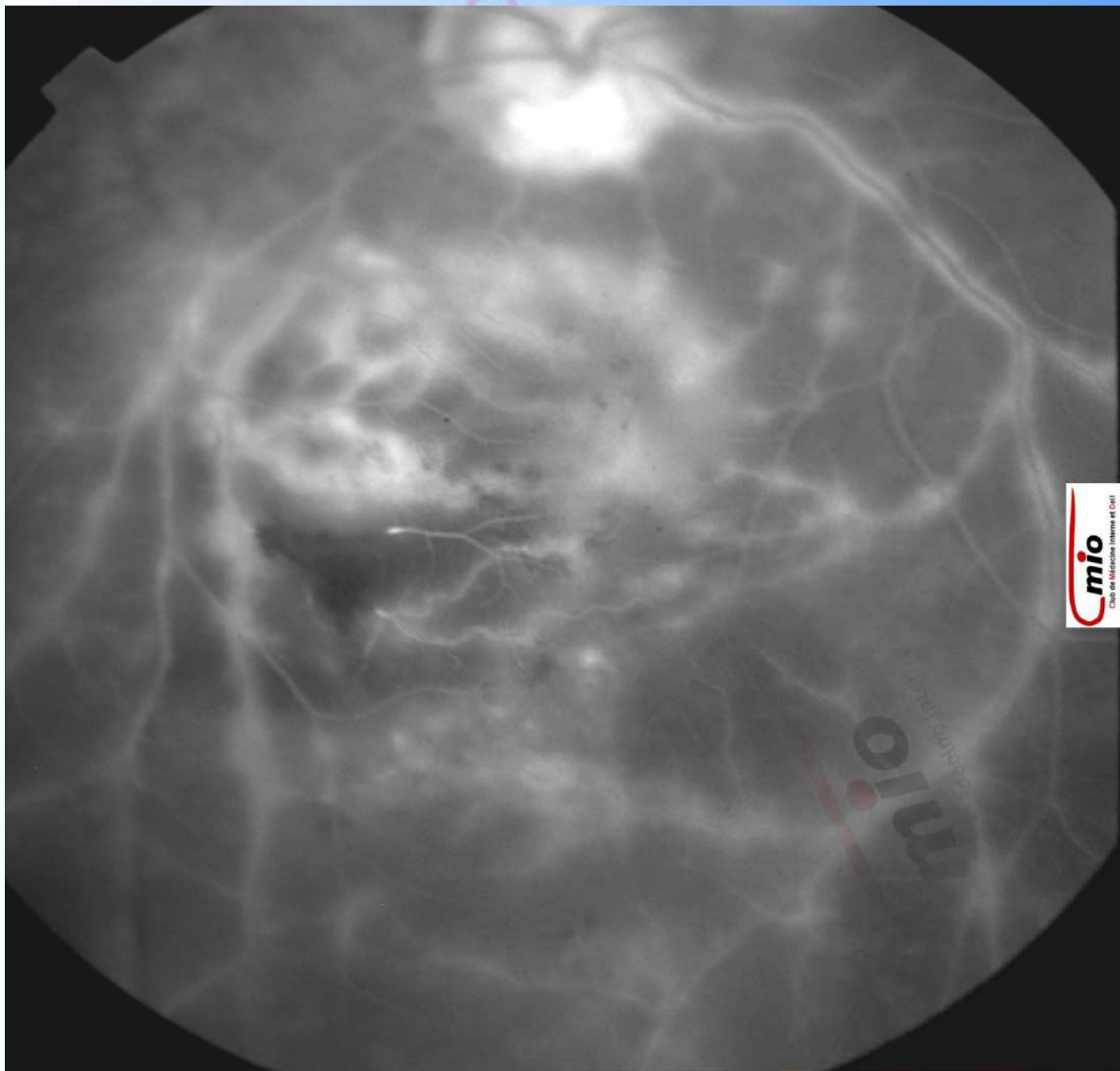




lie

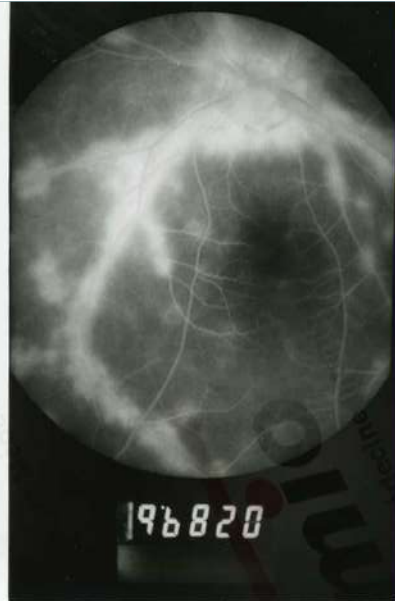
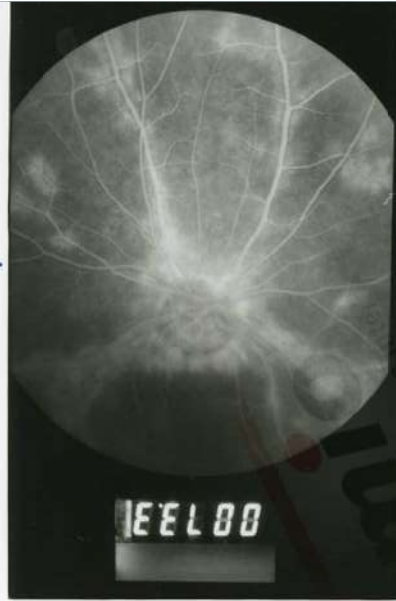


Cell

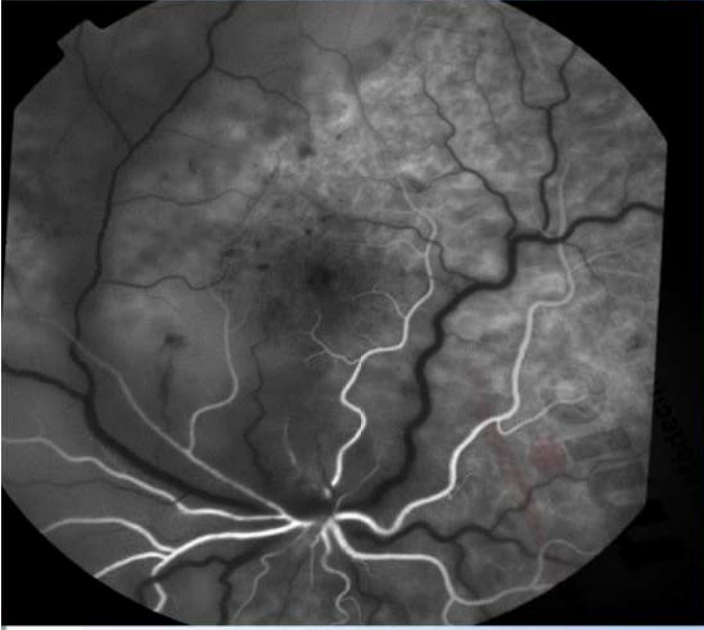


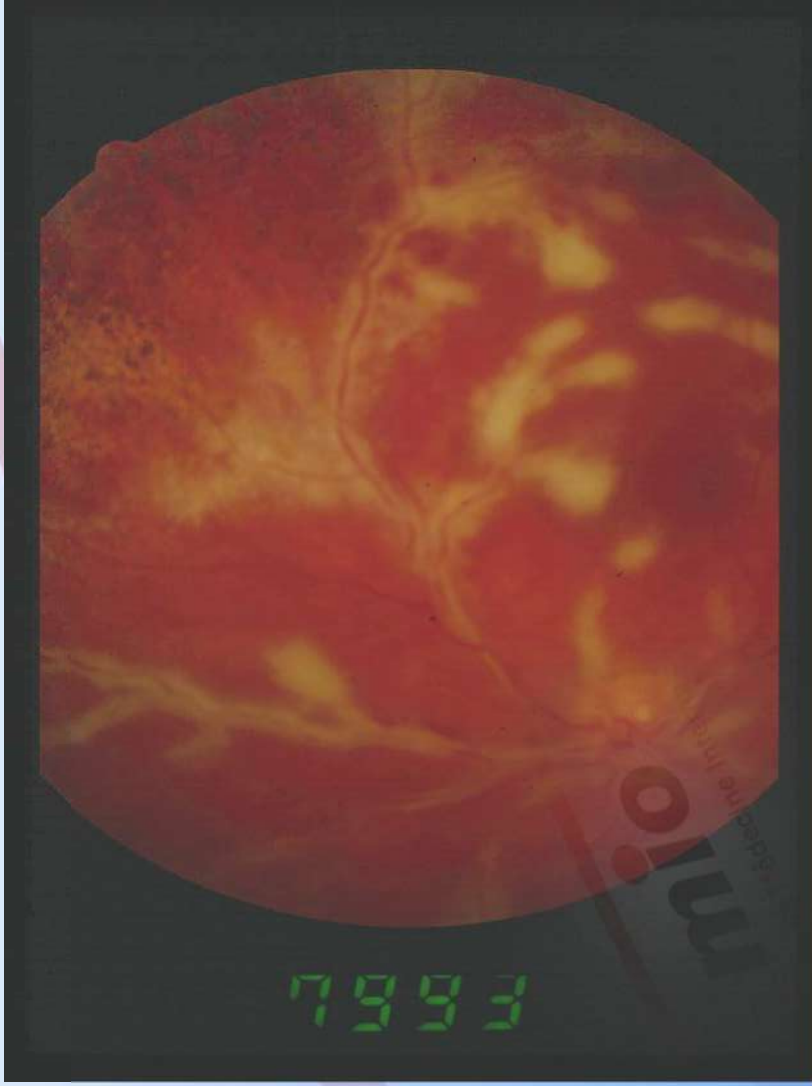
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Conclusions

- Pathologies rares mais graves
- Ophtalmologiste au premier plan
- Se méfier des formes d'emblée sévères
- Stratégies thérapeutiques combinées
- Importance de la surveillance