

SHORT COMMUNICATION

Case report

Transpupillary thermotherapy for circumscribed choroidal hemangiomas: first choice in therapy

C. MOSCI¹, A. POLIZZI², M. ZINGIRIAN² (Genova Ocular Oncology Study Group)

¹ Ophthalmological Department, Celesia Hospital, ASL 3, Genova

² Depart. of Neurological and Vision Sciences, Genova University, Ophthalmological Section B, Genova - Italy

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Circumscribed choroidal hemangioma is a vascular tumor that may affect central vision, mainly because of secondary retinal serous detachment. Traditional treatment in case of visual impairment includes laser photocoagulation or proton beam radiotherapy. Transpupillary thermotherapy (TTT) might be a useful new method for its primary treatment. Described here are two cases without any previous treatment, treated with TTT.

Case No. 1 – A 44-year-old white man complained of visual loss in his right eye for one month. Visual acuity was RE 20/70 and LE 20/20. Fundus examination of the

right eye showed a circumscribed orange-red choroidal mass located supero-temporally to the macula and optic disc, with serous retinal detachment involving the macula. Echography showed a solid mass with high internal reflectivity, 2.56 mm thick. Fluorescein and indocyanine green (ICG) angiography confirmed the diagnosis of choroidal hemangioma (Fig. 1). TTT was used as primary treatment (3 mm spot size, 60 sec exposure, 800-1000 mW power). Ten months later the visual acuity has stabilized at 20/25, no serous retinal detachment was present and the tumor showed a white-grey fibrotic appearance without measurable thickness (Fig. 2).

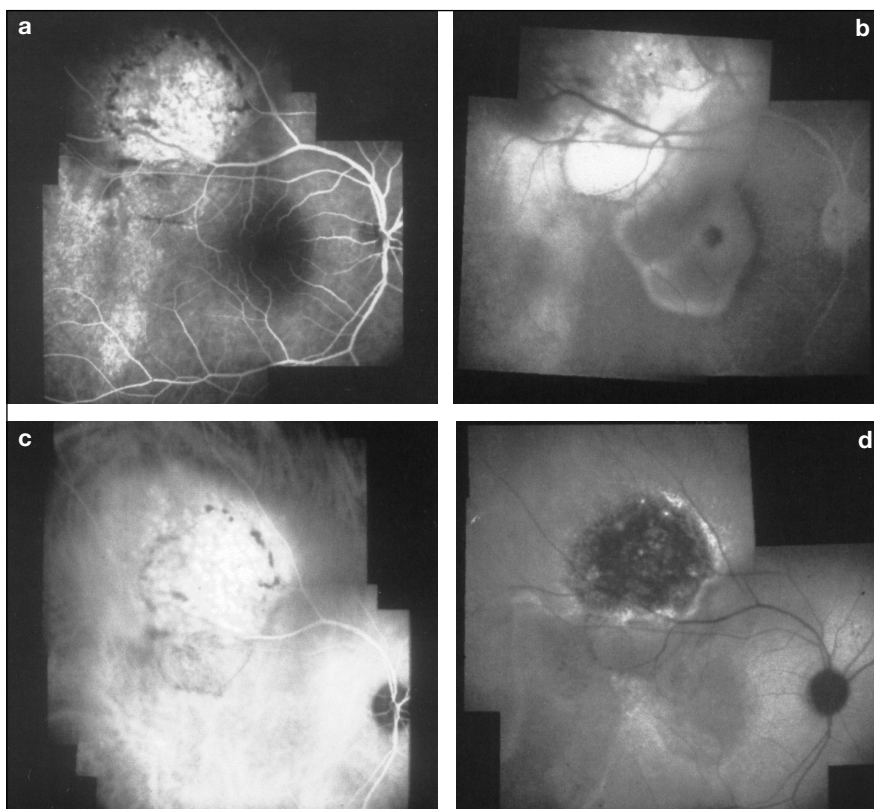


Fig. 1 - Case no. 1: (a-b) FA angiography before treatment (early and late phases). (c-d) ICG angiography before treatment (early and late phases).

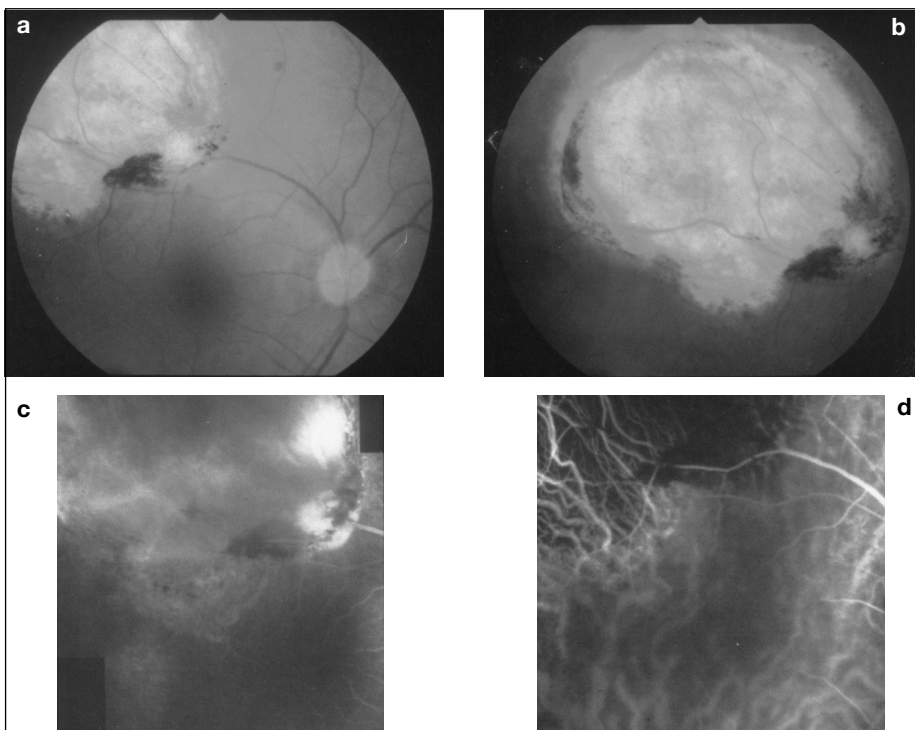


Fig. 2 - Case no. 2: **(a-b)** Color fundus photographs after TTT. **(c-d)** FA and ICG angiographies after TTT.

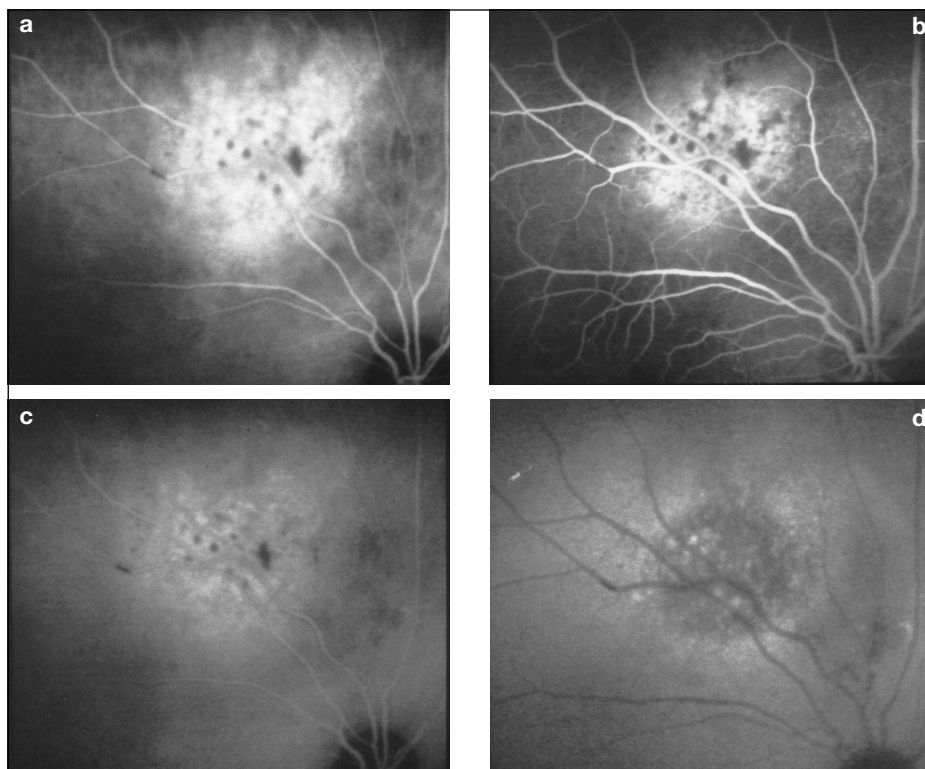


Fig. 3 - Case no. 2: Early and late phases of **(a-b)** FA angiography and **(c-d)** ICG angiography before treatment.

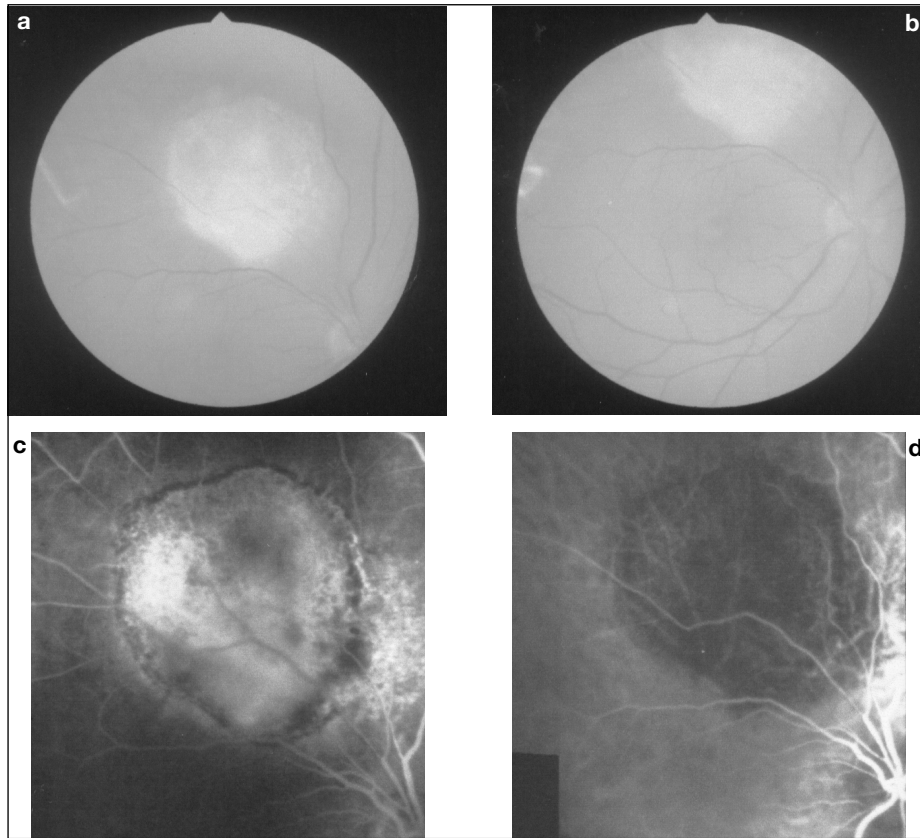


Fig. 4 - Case no. 2: (a-b) Color fundus photographs and FA (c) and ICG (d) angiographies after TTT.

Case No. 2 – A 54-year-old white man had had visual loss in his right eye for three months, with micropsia. Visual acuity was RE 20/50 and LE 20/20. The right fundus showed a small circumscribed orange-red choroidal mass with serous retinal detachment involving the macula. The thickness was 1.51 mm, and high internal reflectivity was seen on a and b scan echography. Fluorescein and ICG angiography showed the typical features of choroidal hemangioma (Fig. 3). TTT was selected as first choice (3 mm spot size; 60 sec exposure; 700-800 mW power). After four months, visual acuity improved to 20/20, and the fundus examination showed a fibrotic, flat scar and a dry macula (Fig. 4).

Other, similar results have been described. Othmane and Shields (1999) and Rapizzi (1999) obtained good results with TTT in choroidal hemangioma after unsuccessful laser photocoagulation. Garcia-Arumi (2000) presented successful results with TTT as primary treatment in eight cases of choroidal hemangioma.

In conclusion, TTT could be a good first option in selected cases of circumscribed choroidal hemangioma.

Reprint requests to:
Carlo Mosci, MD
Divisione di Oftalmologia
Ospedale Celesia, ASL 3 Genova
Passo C. Barsanti, 1
16125 Genova, Italy
camosci@tin.it

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3. Rapizzi E, Grizzard WS, Capone A Jr. Transpupillary thermotherapy in the management of circumscribed choroidal hemangioma. *Am J Ophthalmol* 1999; 127: 481-2.