Editorial

Florid retinopathy: a rapidly progressive form of proliferative diabetic retinopathy

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Florid diabetic retinopathy (FDR) is a rare, aggressive, atypical and commonly bilateral form of proliferative diabetic retinopathy (PDR) characterized by rapid progression of diabetic retinopathy to dramatically consequences including vitreous hemorrhage (VH), retinal detachment (RD) and blindness. Thus, it has been defined as "rapid, bleeding and blinding" retinopathy. It usually occurs in young female patients under the age of 40years with long-standing type I diabetes mellitus (DM) and poor metabolic control.[1-4] It has been considered that widespread breakdown in blood-retinal barrier, retinal vascular leakage and retinal neovascularization (NV) due to acute hypoglycemic attacks with acute or transient elevations of the levels of insulin-like growth factor 1 (IGF-1) in serum and vascular endothelial growth factor (VEGF) levels in vitreous triggered by diffuse and acute retinal ischemia might play role in the pathogenesis of FDR.[5]

The complications of FDR are VH, tractional RD, neovascular glaucoma, and blindness in a very short time such as a few weeks or months. Thus, to prevent the destructive consequences of FDR, the management of the disease includes early diagnosis and aggressive treatment with an extensive pan-retinal photocoagulation (PRPC) and when necessary, early pars plana vitrectomy (PPV).[1,2,6-8] Intra-vitreal anti-VEGF drug and steroid injections should be considered as the adjunctive treatment to obtain NV regression and interventional easiness for PRFC and PPV, if markedly fibrovascular vitreoretinal traction is not observed.[9-11] Recent reports on the treatment of FDR showed that pituitary ablation, insulin-infusion device or continuous subcutaneous insulin infusion can preserve vision in selected cases.[8,12,13]

If FDR can be diagnosed early, early and extensive PRFC treatment can provide to prevent the progression in 75% of the cases with FDR. However, late treatment carries out a six-fold risk of blindness compared to early treatment. If ocular media and retinal thickness can permit, PRFC should be applied promptly and confluent and more laser spots and more applying sessions with shorter intervals compared to typical PDR. Additionally, these cases should be followed-up more frequently. If new NV occurs, further laser treatment should be considered within four weeks for total ablation of the ischemic retina. In patients with dense VH and/or vitreoretinal traction, vitreoretinal surgery and endolaser photocoagulation as soon as possible should be planned.[1-4, 6-8]

Although FDR is often diagnosed in young-middle ages, it can also develop in puberty and adolescence because of high-risks such as the difficulties in glycemic control, low compliance to treatment, and hormonal alterations in puberty including the growth hormone and IGF-1. Thus, the cases at the adolescent and post pubertal period, and particularly DM patients with 16-18years old should be closely monitored for both typical and florid PDR.[14-17]

In conclusion, FDR is an aggressive and blinding form of PDR. Thus, young and post pubertal patients with DM should be closely monitored and most frequently examined for early detection of FDR. Here, I aimed to highlight that early diagnosis and an aggressive and prompt treatment with PRPC and possibly PPV can obtain a better prognosis in the cases with FDR and it could prevent to the blindness.

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Abbreviations: FDR, florid diabetic retinopathy; PDR, proliferative diabetic retinopathy; VH, vitreous hemorrhage; RD, retinal detachment; DM, diabetes mellitus; NV, neovascularization; IGF-1, insulin-like growth factor 1; VEGF, vascular endothelial growth factor; PRPC, pan-retinal photocoagulation; PPV, pars plana vitrectomy

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Conflict of interest

The author declares that there is no conflict of interest regarding the publication of this paper.

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References

1. Lanzetta P, Bandello F, Menchini U, et al. Florid diabetic retinopathy and its systemic implications. *Diabetes Nutr Metab.* 1999;12(6):418−419.
2. Lattanzio R, Brancato R, Bandello FM, et al. Florid diabetic retinopathy (FDR): a long-term follow-up study. *Graefes Arch Clin Exp Ophthalmol.* 2001;239(3):182−187.
3. Seyer-Hansen K, Faurschou S. Severe proliferative retinopathy in a young man with diabetes of very short duration. *Acta Med Scand.* 1985;217(5):571–574.

4. Ahmad SS, Ghani SA. Florid Diabetic Retinopathy in a Young Patient. *J Ophthalmic Vis Res.* 2012;7(1):84−87.
5. Kitano S, Funatsu H, Tanaka Y, et al. Vitreous levels of IGF-1 and VEGF in florid diabetic retinopathy. *Invest. Ophthalmol. Vis. Sci.* 2005;46(13):347.
6. Favard C, Guyot-Argenton C, Assouline M, et al. Full panretinal photocoagulation and early vitrectomy improve the prognosis of florid diabetic retinopathy. *Ophthalmology.* 1996;103(4):561−574.
7. Kieselbach G. Vitrectomy in florid proliferative diabetic retinopathy. *Ophthalmologica.* 1989;199(4):141−145.
8. Kohner EM, Hamilton AM, Joplin GF, et al. Florid diabetic retinopathy and its response to treatment by photocoagulation or pituitary ablation. *Diabetes.* 1976;25(2):104–110.
9. Rapizzi E, Giansanti F, Vannozzi L, et al. Intravitreal Bevacizumab in the treatment of florid diabetic retinopathy. *Invest. Ophthalmol Vis Sci.* 2008;49(13):2744.
10. Couturier A, Dupas B, Guyomard JL, et al. Surgical outcomes of florid diabetic retinopathy treated with antivascular endothelial growth factor. *Retina.* 2014;34(10):1952−1959.
11. Bandello F, Pognuz DR. Intravitreal triamcinolone acetonide for florid proliferative diabetic retinopathy. *Graefes Arch Clin Exp Ophthalmol.* 2004;242(12):1024−1027.
12. Irsigler K, Kirtz H, Najemnik C, et al. Regression of florid proliferative diabetic retinopathy through achievement of normoglycaemic over five months by means of a portable insulin-dosage apparatus. *Wien Klin Wochenschr.* 1980;92(8):270−276.
13. White MC, Kohner EM, Pickup JC, et al. Reversal of diabetic retinopathy by continuous subcutaneous insulin infusion: a case report. *Br J Ophthalmol.* 1981;65(5):307−311.
14. Ben Mehidi A, Massin P, Guyot-Argenton C, et al. Diabetic retinopathy in children and adolescents. *Diabetes Metab.* 2003;29(3):300−6.
15. Donaghue KC, Fairchild JM, Craig ME, et al. Do all prepubertal years of diabetes duration contribute equally to diabetes complications?. *Diabetes Care.* 2003;26(4):1224−1229.
16. Wedrychowicz A, Dziatkowiak H, Nazim J, et al. Insulin-like growth factor-1 and its binding proteins, IGFBP-1 and IGFBP-3, in adolescents with type-1 diabetes mellitus and microalbuminuria. *Horm Res.* 2005;63(5):245−251.
17. Murphy R, Nanda M, Plotnick L, et al. The relationship of puberty to diabetic retinopathy. *Arch Ophthalmol.* 1990;108(2):215−218.

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