



Vision loss, tractional retinal detachment, and profound anemia due to rectal carcinoma

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Abstract

Profound anemia can cause severe proliferative retinopathy and tractional retinal detachment; therefore, it is important to closely investigate the cause of anemia. Endoscopy and computed tomography are valuable tools for this purpose.

KEYWORDS

anemia, anemic retinopathy, rectal cancer, retinal detachment

A 39-year-old woman without a medical history of diabetes mellitus had a complaint of bilateral visual loss lasting three months. The patient compulsively consumed ice for a period of 2 years due to an eating disorder called pica. Furthermore, she had noticed the presence of heart palpitations for the prior 6 months. Physical examination revealed that her conjunctiva was severely anemic, and laboratory data showed markedly low hemoglobin (3.5 g/dL). Fundoscopy revealed multiple retinal and preretinal hemorrhages and proliferative membranes (Figure 1A), while optical tomography (Figure 1B) showed tractional retinal detachment in the left eye. In the process of further examination of the anemia, advanced rectal cancer

with a hemorrhagic source was revealed by whole-body computed tomography (Figure 1C) and colonoscopy (Figure 1D).

Anemic retinopathy has been considered to be caused by retinal hypoxia, leading to endothelial injury and retinal neovascularization.¹ Proliferative membranes causing tractional retinal detachment can be seen in advanced cases. The risk for occurrence of anemic retinopathy is increased in patients with lowered hemoglobin of <8 g/dL.² Typical fundus findings of anemic retinopathy include retinal hemorrhages, exudates, and papilledema. Attention should be paid to the possible complication of retinopathy in cases of progressive anemia with visual disturbance.

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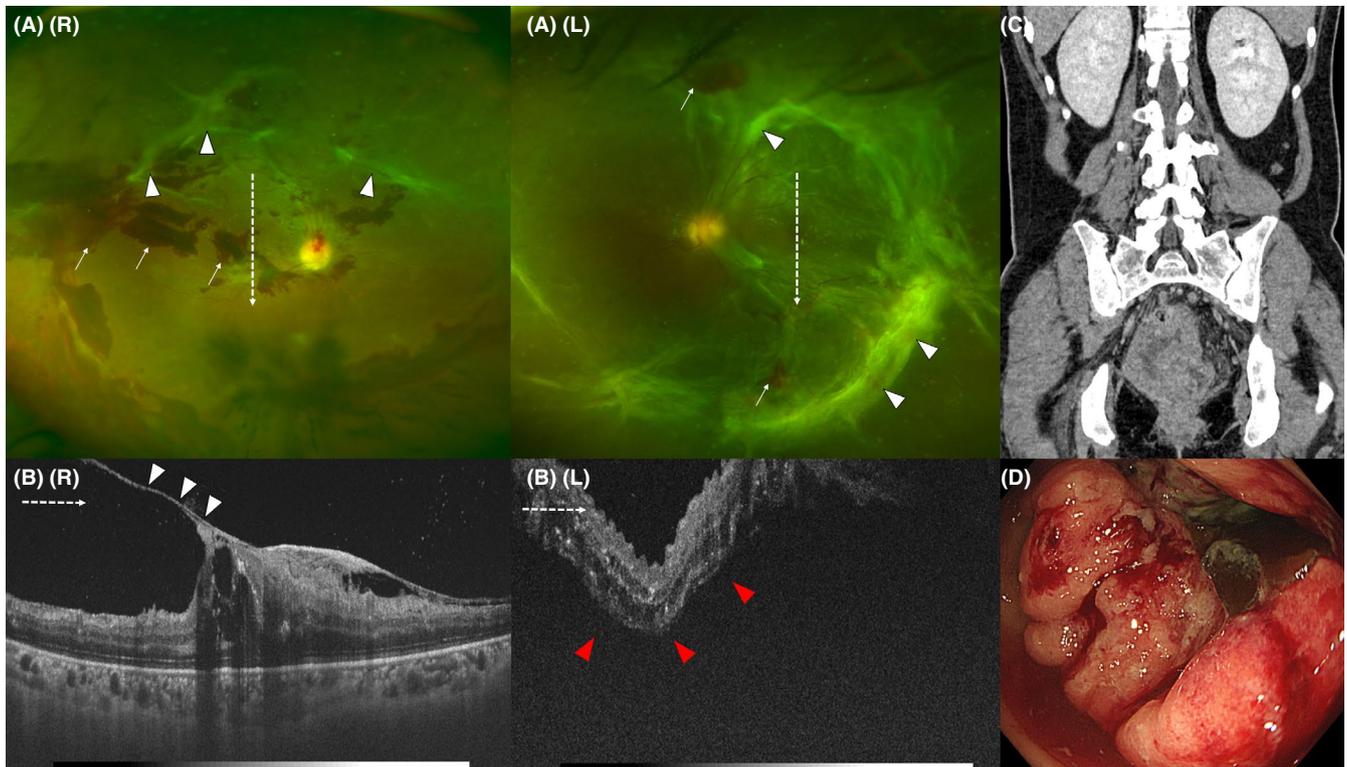


FIGURE 1 Fundoscopy (A) and optical coherence tomography scan images (vertical scan) of the macula (B) demonstrate multiple retinal and preretinal hemorrhages (white arrows), proliferative membranes (white arrowheads), and tractional retinal detachment (red arrowheads). The dotted arrows indicate the location corresponding to the section of the optical coherence tomography image. Computed tomography (C) and colonoscopy (D) showed advanced rectal cancer with a hemorrhagic source

CONFLICT OF INTEREST

The authors declare no conflicts of interest in association with the present study.

AUTHOR CONTRIBUTION

AY: involved in writing the manuscript. YN and MO: involved in editing of the manuscript. YM: involved in the ophthalmological examination and editing of the manuscript. FO: involved in supervision of all procedures.

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