Acute toxicity of chemotherapy and radiotherapy can be life-threatening, and the effect on organ systems that have not yet matured can be irreversible. In our patient, the small-for-gestational-age condition and the aggressive nature of the malignancy, together with profound sepsis, precluded attempts at curative chemotherapy.

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Immunopathologic Features of Inflammatory Coats Disease

Coats disease, first described by George Coats in 1908, is characterized by massive retinal exudates and vascular anomalies.1 In his report, the vascular changes described were in 3 forms: (1) dilation with little change in the vascular wall; (2) thickening of the wall with hyaline degeneration and nuclear fragmentation; and (3) collections of inflammatory cells in the wall and perivascular spaces. Although the vascular changes were studied,2 the latter characteristic is uncommon. To our knowledge, the immunopathologic features of inflammatory Coats disease have not been reported. In this article, we report the immunopathologic features of a patient with this rare entity.

Report of a Case. A 29-year-old woman, who had a 9-year history of bilateral uveitis complicated by secondary glaucoma in the right eye, developed floaters and visual loss in the right eye during a 6-month period. Her visual acuity at initial examination was hand motions OD and 20/100 OS. There was a dense cataract in the right eye that obscured the

Figure 1. Fundus photographs of the left eye of a patient with Coats disease. A, Posterior pole with subretinal exudates and crystals. B, Anomalous and tortuous vessels with subretinal exudation.
fundus at examination. We observed 1+ anterior chamber cells, rubeosis, 1+ vitreous cells, trace vitreous haze, and 1+ posterior subcapsular cataract in the left eye. The right eye had no evidence of inflammatory disease. Fundus examination of the left eye revealed a peripheral exudative retinal detachment, extensive retinal exudates involving the macula and temporal and inferior retina, and tortuous vascular anomalies with sheathing (Figure 1). Retinal pigment epithelial clumping and mild subretinal fibrosis in the periphery were also observed. Fluorescein fundus angiography revealed small telangiectatic vessels with overt leakage that were characteristic of Coats disease. Clinically, the patient responded to 40-mg periocular injections of methylprednisolone acetate in the left eye, with reduction of the retinal detachment. Three months later, she underwent a pars plana vitrectomy and cataract removal in the right eye. Fundus examination of the right eye revealed extensive panretinal photocoagulation laser scars and optic atrophy. Her vision improved to 5/200 OD. During the next 2 years, the inflammation in the left eye was partially controlled with cyclosporine (7 mg/kg) and prednisolone (60 mg/kg). However, she developed intractable neovascular glaucoma that led to the complete loss of vision in that eye. The left eye was enucleated and obtained for histopathologic testing. Examination disclosed extensive retinal detachment with fibrogliosis and lymphocytic infiltration in the peripheral retina. The vessels were tortuous and highlighted by migrating pigment cells (Figure 2A). Abundant cholesterol crystals and lipid-laden histiocytes were observed in the subretinal space (Figure 2B). Loss of photoreceptor cells was noted in the affected areas. These features are characteristic of Coats disease. In addition, there were prominent inflam-

Figure 2. Photomicrographs of the posterior segments of the eye. A, Large tortuous vessels highlighted by the migrating retinal pigment epithelium (arrow). B, Cholesterol clefts (arrows) and lipid-laden histiocytes (asterisk) in the subretinal space. C, Infiltrating CD4+ T lymphocytes surrounding the vessels. D, CD68+ macrophages within the lumen of a sclerotic retinal vessel (A, hematoxylin-eosin, original magnification ×200; B, oil red O, original magnification ×100; C and D, avidin-biotin complex immunoperoxidase, original magnification ×200).

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matory infiltrates in and adjacent to many retinal vessels. Immunocytochemical staining revealed macrophages (CD68+) within the lumina of some sclerotic vessels (Figure 2D) and perivascular infiltration of T lymphocytes (CD4+CD8 cells) (Figure 2C).

**Comment.** Coats disease, usually present in childhood, has been reported to occur in patients in the second to third decade of life (range, 2-52 years). Intraocular inflammation, although observed on histopathologic testing, is not a prominent feature in this disease. A previous electron microscopic study has shown the presence of mononuclear and polymorphonuclear cells within the lumina of some vessels and in the perivascular space. This case is unique with regard to the prominent inflammatory component in addition to the subretinal and retinal lipid crystal deposits and abnormal retinal vasculature that are characteristic of Coats disease. In this case, the inflammatory component of the disease was partly controlled by prednisolone and cyclosporine, but immunosuppressive therapy did not completely stop the progression of the vascular disease. Immunocytochemical staining revealed that the intraluminal inflammatory cells were macrophages and that the perivascular inflammatory infiltrates were composed largely of T lymphocytes. Immunosuppressive therapy such as cyclosporine, whose action primarily targets the interleukin 2 receptors on the activated T lymphocytes, may be beneficial in the treatment of inflammation encountered in this rare variant of Coats disease.

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**Correction**

Omission in Byline and Affiliations. In the Laboratory Sciences article by Morimura et al titled “Histological Effect and Protein Expression in Subthreshold Transpupillary Thermotherapy in Rabbit Eyes,” published in the October issue of the ARCHIVES (2004;122:1510-1515), an author’s name was inadvertently omitted from the byline and from the affiliations paragraph on page 1510. The byline should have read as follows: Yoshihiro Morimura, MD; Annabelle A. Okada, MD; Atsushi Hayashi, MD; Sayuri Fujioka, MD; Noriyasu Hashida, MD; Sumie Kawahara, MD; Tetsuo Hida MD. The affiliations paragraph should have read as follows: “From the Department of Ophthalmology, Kyorin University School of Medicine, Tokyo, Japan (Drs Morimura, Okada, Kawahara, and Hida); and the Department of Ophthalmology, Osaka University Medical School, Suita, Japan (Drs Hayashi, Fujioka, and Hashida). The authors have no relevant financial interest in this article.” The journal regrets the error.