Retinoblastoma Mimicking Orbital Cellulitis

An 18-month-old toddler presented with fever and tender swelling of right eye for 10 days (***Fig.* 1**). We suspected orbital cellulitis due to local signs of inflammation. Investigations were Hb 10 g/dL, platelet-count 336 x 10^3/L, WBC 17.6 x 10^9/L (85% neutrophils), and C-reactive protein 56 mg/L. The puffiness of eye reduced, though did not resolve completely following 5 days of intravenous antibiotics. Cultures were sterile. CT demonstrated calcified mass in the posterior segment of eye, with optic-nerve thickening (***Fig.* 2**). Examination under anesthesia suggested retinoblastoma. CSF and bone marrow examination were unremarkable. He received three cycles of chemotherapy, followed by enucleation, further nine cycles of chemotherapy, and orbital radiotherapy (stage III disease). Histopathology confirmed retinoblastoma. Child is well one year following treatment.

Orbital cellulitis is an infrequent (4-5%) presentation of retinoblastoma. Inflammation develops following tumor necrosis. Fever, leucocytosis, anterior-segment extension, however not necessarily extra-ocular spread, are characteristic. Prednisolone along with antibiotics reduce inflammation, rendering definitive treatment feasible. Presentation mimicking bacterial pre-septal cellulitis is known in malignancies including retinoblastoma and rhabdomyosarcoma. A calcified intraocular mass in such a case suggests the diagnosis of retinoblastoma. Retrolental fibroplasia, Coats disease and toxoplasma chorioretinitis can rarely develop calcification as late sequelae beyond three years of age.

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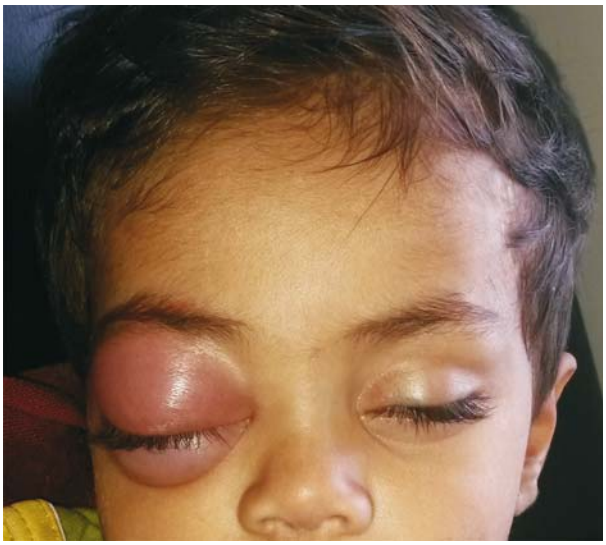

Fig. 1 *Retinoblastoma presenting as orbital cellulitis of the right eye in an 18-month-old boy.*

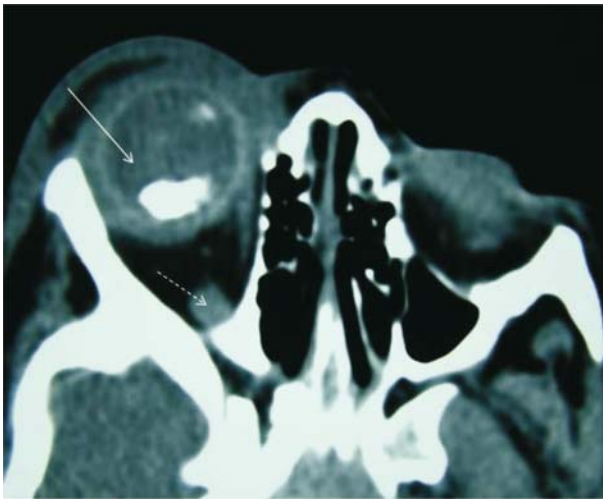

Fig. 2 *CT scan showing intraocular calcified mass in the right eye (solid arrow) with optic nerve thickening (broken arrow).*