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OCCULT FOREIGN BODY SIMULATING A UVEAL MELANOMA WITH EXTRASCLERAL EXTENSION

(foreign body/ uveal melanoma)

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A 78-year-old woman with complaints of discomfort in the left eye was referred to us for a pigmented and gradually-enlarging tumorous mass on the left sclera. The patient denied ocular trauma. Pigmentation on the iris also was found close to the scleral lesion. The lesion was initially suspected to be a uveal melanoma with extraocular extension. A computed tomographic scan showed a high density mass intraocularly. Second, the lesion was thought to be an intraocular metallic foreign body with uveal prolapse. The lesion was removed surgically and histopathologic examination revealed it to be an iron splinter in the left episclera. We believe that an occult foreign body should be considered in the differential diagnosis of uveal melanoma.

Many melanoma-simulating lesions have been reported (1-9). Among them are ones in which a foreign body produces a mass that resembles a malignant melanoma of the uvea with or without extrascleral extension (2,4,7,9). We recently treated an elderly patient who had an episcleral foreign body that simulated a uveal melanoma with extrascleral extension.

CASE REPORTS

A 78-year-old woman was referred to us by an ophthalmologist for an evaluation of a pigmented and gradually enlarging tumorous

mass in the left sclera. The patient complained of discomfort in that eye. The patient and her family members reported that the lesion had been enlarging. The referring ophthalmologist suspected the lesion was a uveal melanoma with extrascleral extension. The patient had been treated for systemic hypertension and Parkinson's disease for ten years duration, but denied any history of antecedent ocular trauma.

Her best corrected visual acuity was 20/50 OD and 20/100 OS. Her intraocular pressure was 12 mm Hg OU. A 1.2 x 1.2 mm lesion that was pigmented and rough-surfaced was noted 1.5 mm posterior to the limbus in the inferotemporal quadrant of the left episclera. A pigmented patch of iris also was found close to the episcleral lesion (Fig. 1). The corneas were clear. No cellular floaters in the anterior chamber, dilation of conjunctival and episcleral vessels, or ciliary injection were found. No pigmentations were noted in the anterior chamber angle. Wheel-like cortical opacities were observed in both lenses. No abnormal findings other than sclerotic retinal vessels were noted in both fundi.

Transillumination, conventional roentogenography and ultrasonography of the left globe revealed no tumorous mass in the uvea. Computed tomography of the orbit demonstrated an intraocular high-density mass (Fig. 2). Fluorescein angiography

Fig. 1. A pigmented and rough-surfaced 1.2 x 1.2 mm lesion is noted 1.5 mm posterior to the limbus in the inferotemporal quadrant of the left episclera. Also present is a pigmented patch in the iris.

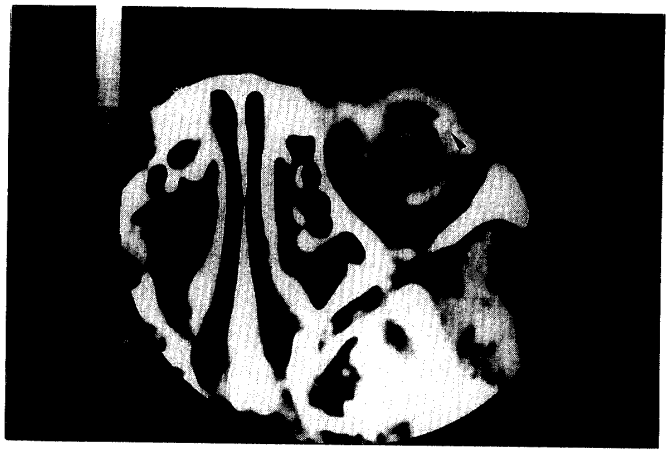

Fig. 2. Preoperatively, a computed tomographic scan of the orbit demonstrates the intraocular presence of a high-density mass (arrow).

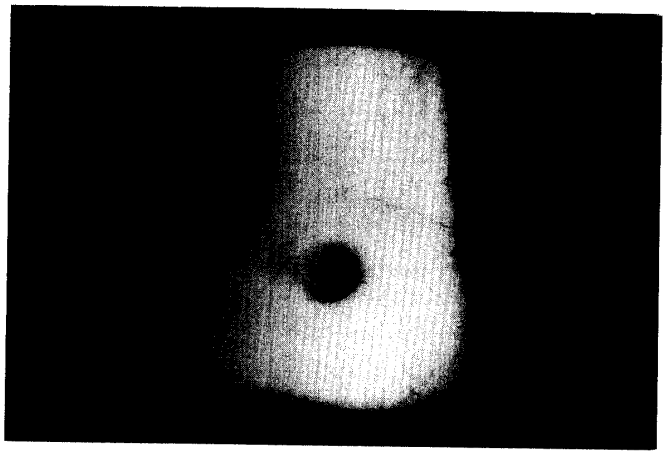

Fig. 3. Fluorescein angiography of the anterior segment revealed linear hyperfluorescence on the surface of the scleral lesion.

of the anterior segment disclosed linear hyperfluorescence of the scleral lesion (Fig. 3) and hypofluorescence on the pigmented iris patch. Results of laboratory examinations, including complete blood cell count and urinalysis were within normal range.

The lesion was initially suspected to be a uveal melanoma with extrascleral extension. Second, an intraocular metallic foreign body with uveal prolapse was suggested, based on the computed tomographic findings. The lesion did not respond to a magnet. The decision was made to suture the scleral wound.

After a fornix-based conjunctival flap was made during

surgery, the lesion was exposed and its center was found to be harder than expected for a uveal tissue or melanoma. The episclera surrounding the lesion was undermined, and the lesion was located within the episclera; the lesion and surrounding episclera were removed. No perforating wound was found in the sclera. The scleral wound was covered with a reserved scleral button, and sutured close with 9-0 nylon.

Fig. 4. Histopathologic examination of the excised specimen shows that the lesion contains no cellular component. (Hematoxylin-eosin staining, x 35)

Fig. 5. Postoperatively, computed tomographic scan reveals absence of the metallic lesion.

Histopathologic examination of the excised specimen demonstrated that the lesion contained no cellular component

(Fig. 4), and stained green by the method of Pearls, indicating its composition was iron. No uveal tissue or melanoma cells were found in the specimen.

The patient's postoperative course was uneventful. A second computed tomographic scan of the left globe revealed the absence of any foreign body (Fig. 5). One year after the operation, the patient had no complaints of discomfort, and she retained the same visual and intraocular pressures as recorded preoperatively. The iridial pigmentation was unchanged.

DISCUSSION

Both the pigmented scleral lesion and pigmented iris patch suggested the presence of a melanoma in our patient. Because the patient and her family stressed the increasing enlargement of the lesion, and the patient denied ocular trauma, the referring ophthalmologist initially suspected a uveal melanoma with extraocular extension. Computed tomography demonstrated an intraocular high-density mass, probably a metallic foreign body. Linear hyperfluorescence in the scleral lesion was thought to be due to neovascularization or uveal vessels. An association of antecedent trauma with malignant melanoma had been previously reported (10,11). We therefore suspected the lesion to be either an intraocular metallic foreign body with uveal prolapse or a melanoma.

The lesion actually was an episcleral iron splinter. The reported growth of the lesion and no prior history of ocular trauma may have been erroneous. It is unclear why the computed tomographic scan demonstrated an intraocular high-density mass. It is possible that the exact location of the lesion occasionally may be inaccurately refleted by computed tomography.

Ferry (2) described a case in which a metallic foreign body that was found in a grape-like chorioretinal scar resembled a choroidal melanoma. Blanks (4) reported an orbital foreign body that simulated an epibulbar melanoma. Lipper and his associates (7) treated a chorioretinal foreign body that mimicked the clinical and fluorescein angiographic characteristics of a malignant melanoma. Lebowitz and collaborators (9) reported on an occult transscleral foreign body that simulated a uveal melanoma with extrascleral extension in a patient who had no

history of ocular trauma. Our patient also reported no history of ocular trauma, but had an episcleral foreign body simulating a melanoma.

We believe that an occult foreign body should be considered in the differential diagnosis of a small uveal melanoma with extrascleral extension.

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