valuable as they confirm that these crystalline opacities associated with chronic retinal detachment are located in the superficial retina, correlating the findings by others.[3,4]

The exact aetiology of the 'crystals' is unknown. Some have postulated that they are associated with degenerating photoreceptors[2] and others have suggested that they represent firm adhesion points of vitreous to the lamellae of the ILM when the vitreous separates from the retina;[3] however, neither of the cases reported in this paper had a clinical PVD. In the absence of extensive histological study, it is only possible to speculate about the exact cause and pathogenesis of this unusual phenomenon. The availability of OCT in these cases has confirmed the location of these crystalline opacities to be in the superficial retina.

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Sir,

**Transpupillary thermotherapy for subfoveal choroidal neovascular membrane in choroidal osteoma**

Choroidal osteoma is a benign tumor, predominantly affecting young women. More than 50% patients end up with visual acuity of 6/60 or worse, primarily because of choroidal neovascularization (CNV). Conventional photocoagulation is rarely useful.[1] We successfully treated a subfoveal CNV in choroidal osteoma with transpupillary thermotherapy (TTT).

### *Case report*

A 22-year-old woman presented with blurred vision in left eye for 12 days. Best-corrected visual acuity was 6/6 in the right eye, and 6/36 in the left. Systemic, serological, and urinary evaluations were unremarkable. Fundus examination showed an orange–white peripapillary subretinal lesion in both eyes, and a subfoveal CNV in the left eye (Figure 1a). Ultrasonography showed a high-echogenic lesion with acoustic shadowing (Figure 1b). Computed tomography

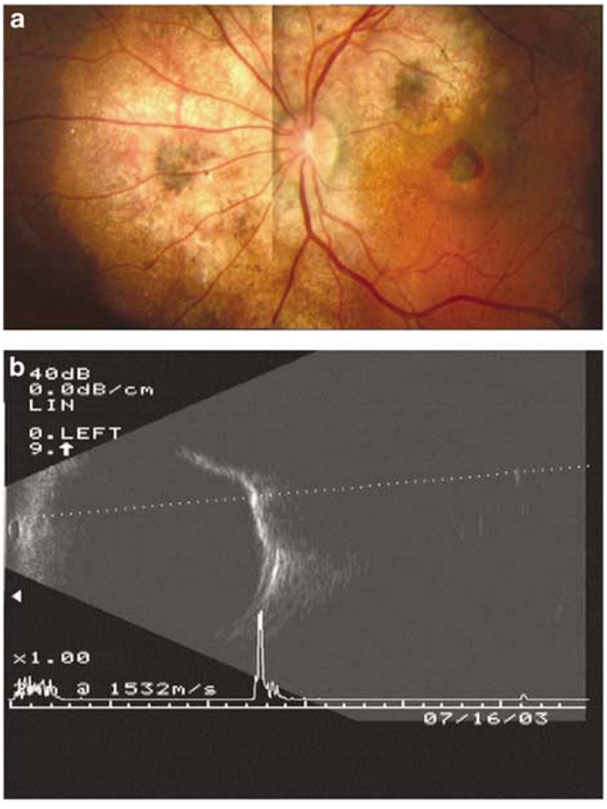


**Figure 1** (a) Fundus photograph of the left eye showing peripapillary choroidal osteoma, with subfoveal choroidal neovascular membrane (CNV). (b) Combined A and B scan ultrasonogram of the left eye demonstrates high reflectivity of the osteoma, persisting at a low gain.

(CT) revealed a bone-density plaque. Fluorescein angiography demonstrated a classic subfoveal CNV in the left eye (Figure 2a). The options of photodynamic therapy (PDT), TTT or observation were explained to the patient. After her informed consent and approval from the Institutional Review Board, TTT was carried out on a slitlamp-mounted 810 nm diode laser. The treatment end point (no visible retinal greying) was predetermined with test burns beyond the inferior arcade. A single 2 mm burn of 250 mW power was delivered for 1 min. Treatment was repeated using similar parameters at 3 and 6 months for residual angiographic leakage. A complete resolution of CNV was observed (Figure 2b) and maintained over the next year; visual acuity stablilized at 6/60.

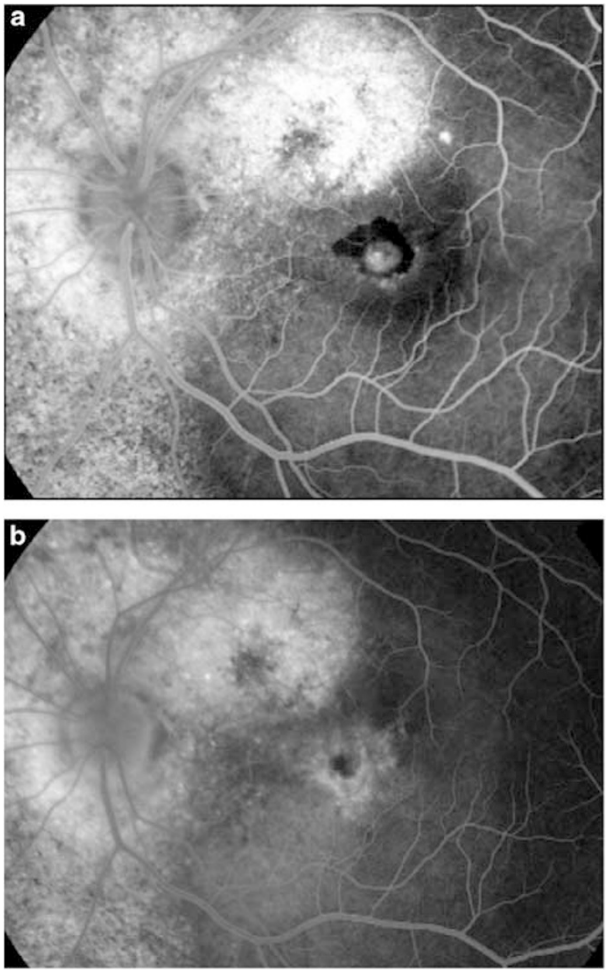


**Figure 2** (a) Late-phase fluorescein angiogram of the left eye shows hyperfluorescence of a classic subfoveal CNV with adjacent blocked fluorescence due to subretinal blood; peripapillary choroidal osteoma shows a granular staining. (b) The CNV regressed completely after the third session of transpupillary thermotherapy.

*Comment*

In the largest published series on choroidal osteoma, the major cause of visual loss was CNV. About half were subfoveal and were only observed. Extrafoveal CNV responded poorly to conventional photocoagulation, probably due to depigmentation of the retinal pigment epithelium (RPE), which reduced uptake of laser energy.[1] Extrafoveal lesions have been successfully treated by PDT, but it has not been attempted on subfoveal CNV.[2,3] Although PDT is theoretically safer (nonthermal) and more effective (not dependent on RPE density) than TTT, complete ablation of CNV required multiple sessions, and was associated with a drop in vision in one report.[3] Similarly, surgical excision of subfoveal CNV was reported to be successful, but visual outcome was poor.[4] There is another recent report on TTT for osteoma-induced subfoveal CNV, which resolved with stable vision following a single treatment session.[5] A report has also mentioned TTT for a fibrovascular RPE detachment, but treatment parameters and outcome were not detailed.[6] TTT has been successfully used for subfoveal CNV due to age-related macular degeneration and other aetiologies.[7–9] The safety and efficacy of subthreshold TTT has been histopathologically demonstrated.[10] In spite of three treatment sessions, our patient maintained a stable visual acuity, similar to the previous report.[4] We propose that TTT may be a useful treatment alternative to submacular surgery or PDT for subfoveal CNV in choroidal osteoma and therefore needs to be investigated further in larger studies.

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Sir,

**Disc drusen and peripapillary subretinal neovascular membrane in a child with the VACTERL association**

We report a case of peripapillary subretinal neovascular membrane in association with optic disc drusen in a patient with the VACTERL (Vertebral defects, anal atresia, cardiac malformations, tracheoesophageal fistula with atresia, renal anomalies, and limb anomalies) association.

### *Case report*

A 13-year-old girl with the VACTERL association was referred to the ophthalmology department complaining of reduced visual acuity in the left eye for the past 4 weeks and a possible diagnosis of papilloedema. A CT scan of the brain performed by the paediatricians was reported as normal. A lumbar puncture was considered, but a decision was made to refer her to the ophthalmic department for further investigations prior to the lumbar puncture.

On examination, her best-corrected Snellen acuity was 6/5 in the right and 6/18 in the left eye. The anterior segments were clear. Fundoscopy revealed a mildly elevated disc in the right eye. The left eye showed an elevated disc and a surrounding elevated lesion with subretinal exudation and haemorrhage. Extensive spotty and linear peripheral RPE lesions were also noted in the left fundus (Figure 1a). Ultrasound examination showed evidence of buried disc drusen in both eyes. Fundus fluorescein angiography revealed a large peripapillary subretinal neovascular membrane with

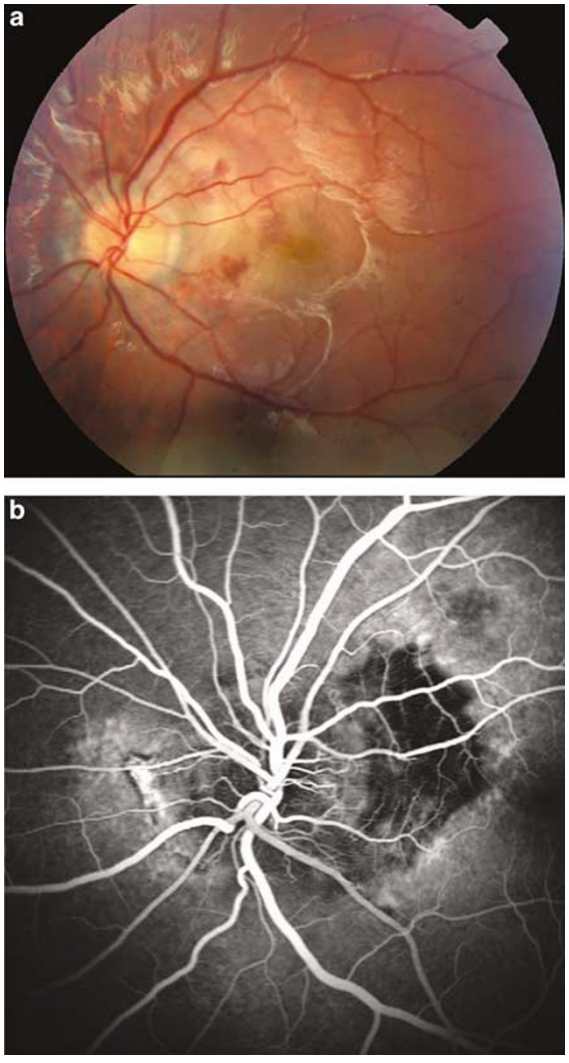


**Figure 1** Coloured fundus photograph of the left eye showing a large peripapillary disciform with accompanying exudation and haemorrhage. (a) Pre-treatment fundus fluorescein angiography demonstrating the extent of peripapillary disciform. (b) Post-treatment fluorescein angiogram demonstrating a well-treated peripapillary disciform.