Reticular Structures in the Ocular Fundus

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The school example of reticular structures in the posterior pole of the eye fundus is dystrophia reticularis laminae pigmentosae, a hereditary affection described by Sjörgen in 1950 and afterwards by Dutch ophthalmologists, among others; only a few affected families are known. The fact that in this case the reticular structure could only be clearly visualized by fluorescein angiography, led to the idea of studying the fluorescein angiograms of other dystrophies of the pigment epithelium for the presence of reticular structures.

Such reticular structures were found in cases of drusen in which these had united into packets divided into smaller fields by a pigmented reticular structure. The original exudative nature of these drusen packets was demonstrated: (a) because sometimes the pigment epithelium had detached at the site concerned; (b) because in other cases an exudative lesion was present elsewhere in the fundus, and (c) because, concurrently with the dry drusen packet, folds of the pigment epithelium were found; this abnormality is considered by us to be a reaction to an already long existing subretinal exudate. The drusen degeneration of Bruch's membrane is followed by an exudative phase (detachment or plication of pigment leaf) and a cicatricial phase with reticular pigment structure.

Much to our surprise, a generalized elastosis (Grönblad-Strandberg syndrome) was present in a third group of patients with reticular structures in the anterior pole; apart from in a positive skin biopsy for pseudo-xanthoma elasticum, this became manifest in angioid streaks in the fundus. However, these reticular structures occurred also without angioid streaks, as an isolated symptom of fundal elastosis.

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Conclusions

Fluorescein angiography sometimes gives surprising information in case of difficultly explicable abnormalities in the posterior pole of the fundus.

Reticular pigment structures in the eye fundus constitute a symptom of the Grönblad-Strandberg syndrome.

Obscure abnormalities in the posterior pole should be a motive for having a skin biopsy carried out, especially if the fluorogram reveals reticular structures.

Discussion

Bleeker: In Sjörgen's retinal disease the pigmented structures can so much better be seen by means of fluorescein angiography. It will undoubtedly have been noticed that this improved visibility also occurs if in direct ophthalmoscopy the light bundle is strongly diaphragmed

causing an 'indirect' fluorescence of the background of the retina. The pigmentations stand beautifully out against this background if the light beam falls just beside them.