Imaging Characteristics of Idiopathic Scleroma: A Retrospective Case Series and Review of The Literature

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Background

- Idiopathic Scleroma (previously coined Solitary Idiopathic Choroiditis or Focal Scleral Nodule) is an innocuous lesion affecting the sclera.
- It is often the basis of many misdiagnoses such as amelanotic choroidal melanoma, osteoma or metastatic lesions.
- Patients are typically asymptomatic, and the course is benign.
- However, with increasing use of community-based imaging, more of such cases are being identified, yet literature on imaging characteristics of these lesions remains sparse.

Aim

- We sought to evaluate the multi-modal imaging characteristics of Idiopathic Scleroma and to progress the current literature base.

Methods

- We performed the largest retrospective analysis of prospectively collected data of patients with this lesion in Europe.
- 44 patients were included and imaged with wide field color fundus photography, fundus autofluorescence, ocular coherence tomography (OCT) and B scan ultrasonography.
- Patient's demographics, symptomology and baseline ophthalmic characteristics upon presentation were also reviewed.

Results

- The mean age of diagnosis was 52, there was no discernible difference in gender and 82% (n=36) of patients were asymptomatic.
- On examination, 73% (n=32) of lesions were yellow, all lacked orange pigment and only 2 (5%) had drusen. The majority (36% n=16) were located inferotemporally relative to the optic nerve.

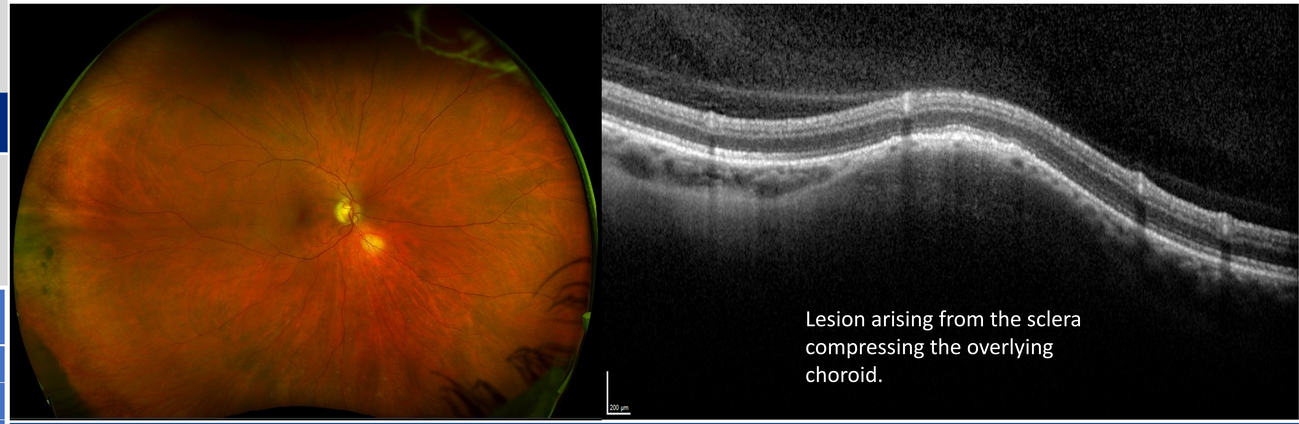
Fundus Autofluorescence, no. (%)	Isoautofluorescent	Hypoautofluorescent	Hyperautofluorescent
Centre of Lesion	6 (14)	2 (4)	36 (82)
Periphery of Lesion	23 (52)	3 (7)	18 (41)
B-scan Ultrasonography, no. (%)	Hyper	Hypo	
Echogenicity	43 (98)	1 (2)	

NRL status at Apex of lesion no. (%)	Normal	Absent	Thin	Thick
ERM		43 (100)		
NFL	30 (70)	1 (2)	4 (9)	9 (21)
ELM	31 (72)	8 (19)	4 (9)	
RPE	19 (44)	16 (37)	10 (23)	13 (30)
Choroid	1 (2)		24 (56)	2 (5)

Layer Elevation Identified (%)	
Choroid	2
Sclera	98

Features on Examination	
Border, no. (%)	
Ill-defined	19 (43)
Defined	25 (57)
Post-equatorial location, no (%)	44 (100)
Distance to local structures (mm)	
Optic disc, median (range)	3.0 (0 – 8.7)
Fovea, median (range)	3.9 (0.5-11.7)
Mean Transverse Measurement (mm)	2.8
Mean Longitudinal Measurement (mm)	2.7

- On fundus photography, the mean diameter was 3.25mm and the mean thickness was 0.8um.



Lesion arising from the sclera compressing the overlying choroid.

Conclusion

- Idiopathic scleroma is a yellow, hyperautofluorescent, hyperechogeneic **scleral** lesion that has no signs of active inflammation. These characteristics help define them from other more sinister cause of amelanotic fundal lesions.

- No conflicts of interest to declare. For more information contact Dr Joe Pearman on pearmanj96@doctors.org.uk