

CFEH Facebook Case #10

A 46 year old female was referred to the Centre for further investigation of some unusual pigmentation on her right iris. The patient reported noticing this pigmented lesion several years ago and not noticing any significant change to it since then. Her ocular, medical and family histories were unremarkable. Best corrected acuities were 6/6 in each eye. Although pupils were asymmetric, they were reactive to light and accommodation and there was no RAPD present.

As the left eye appearance was unremarkable, this case will focus on the right eye only. Anterior eye and gonioscopy photos are below, as are the anterior OCT and ultrasound bio-microscopic imaging (UBM) results.

What is your diagnosis for this patient, what would be your optometric management?

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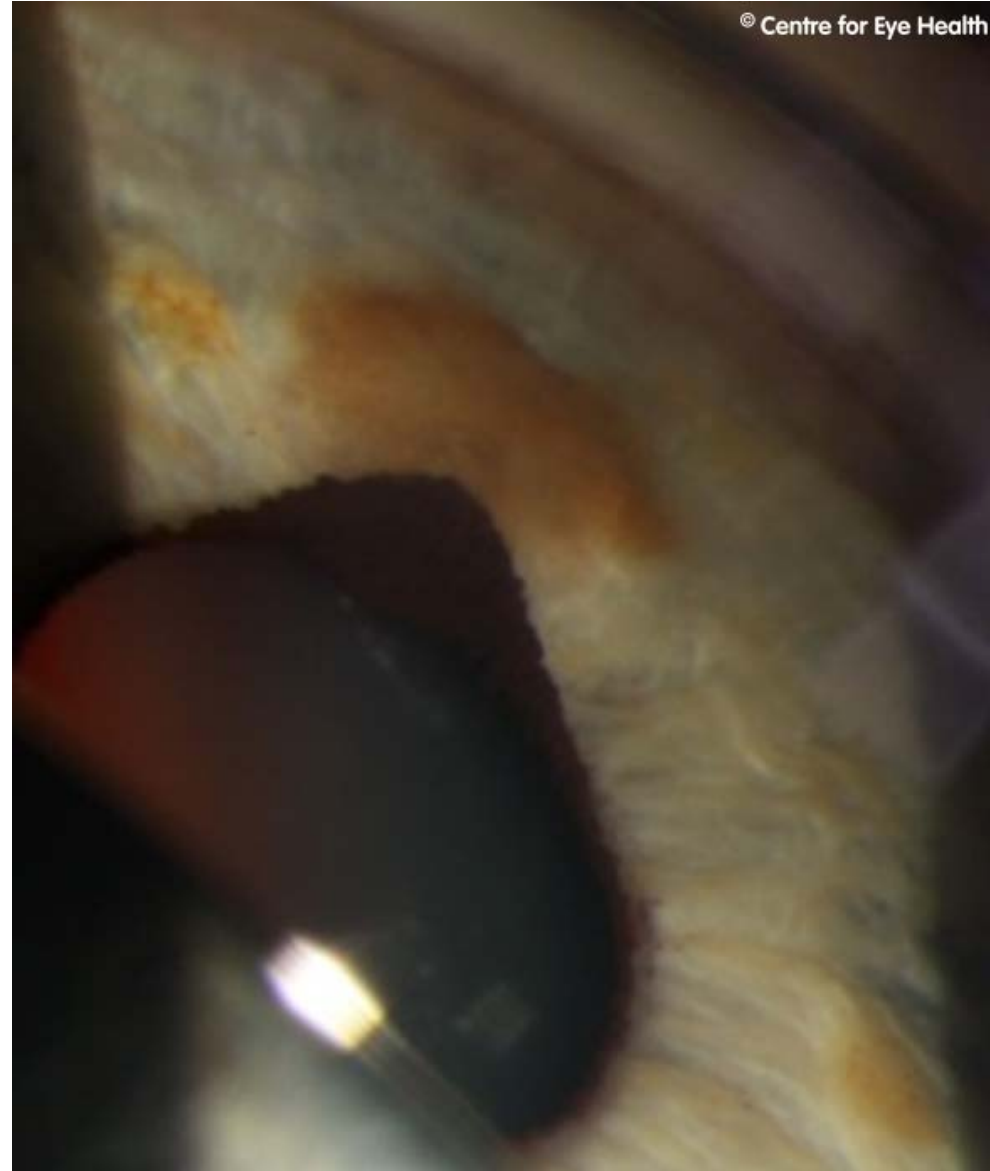
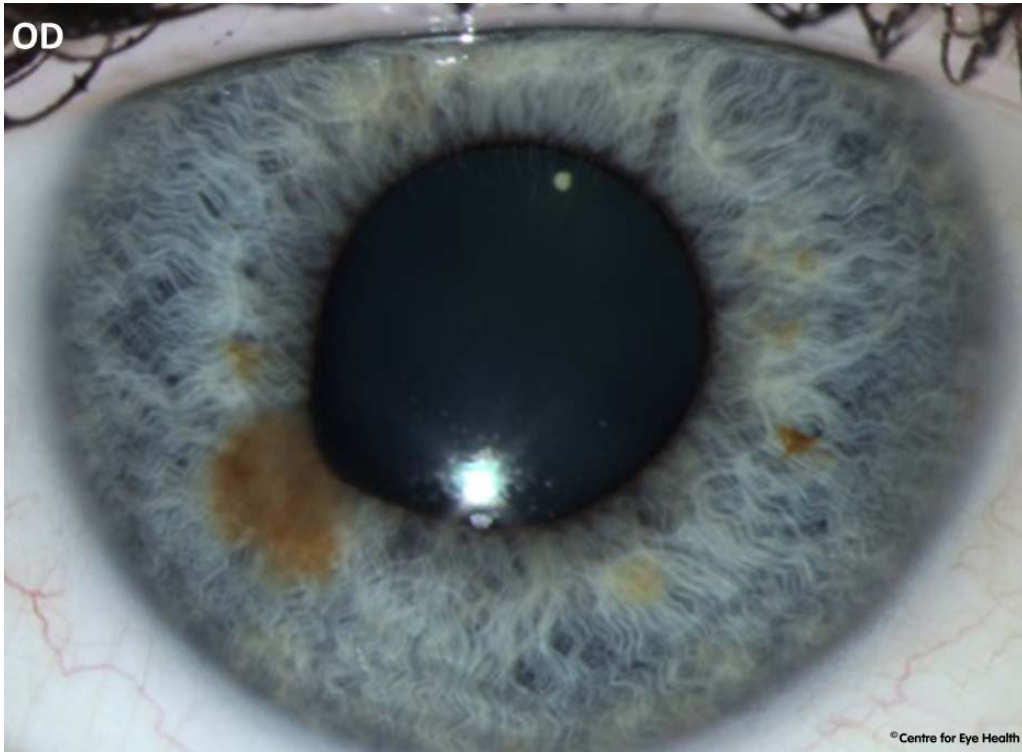
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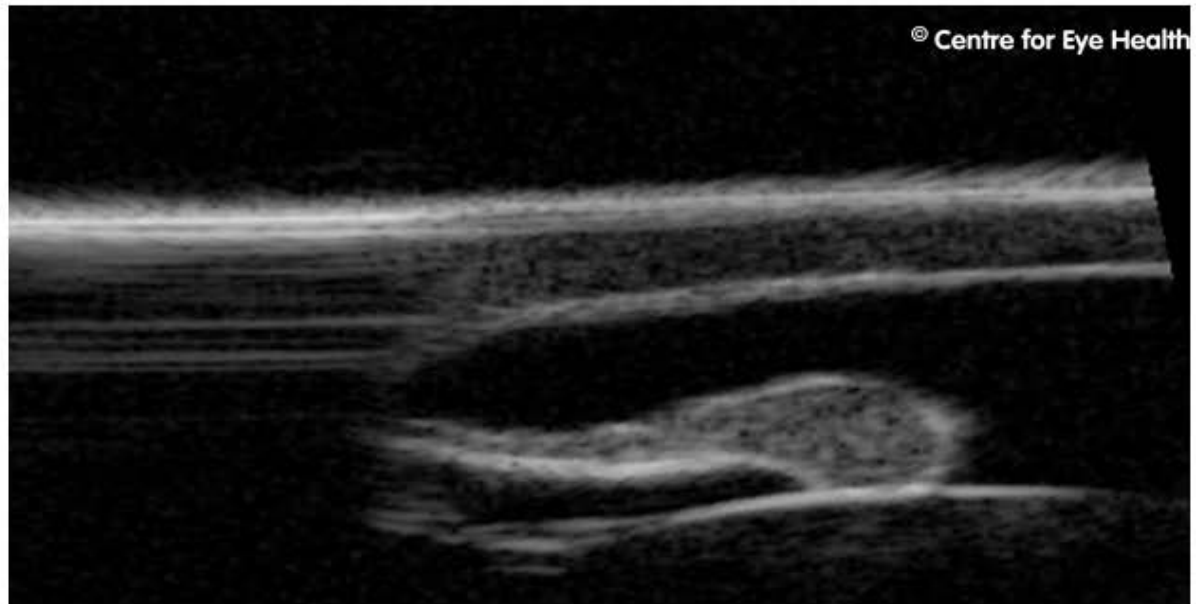
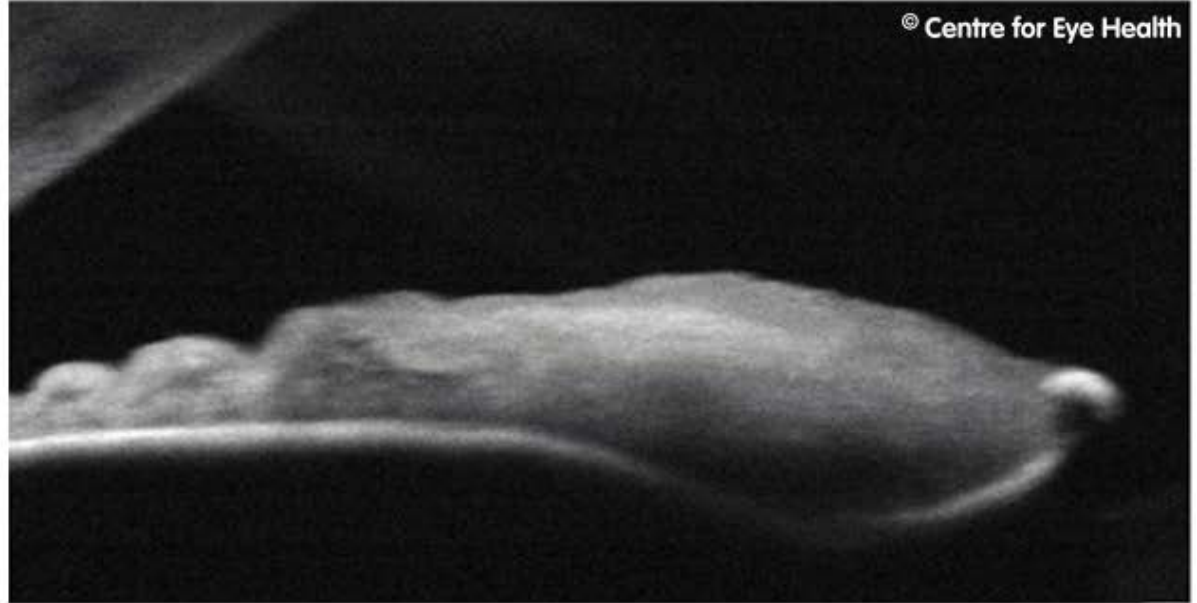
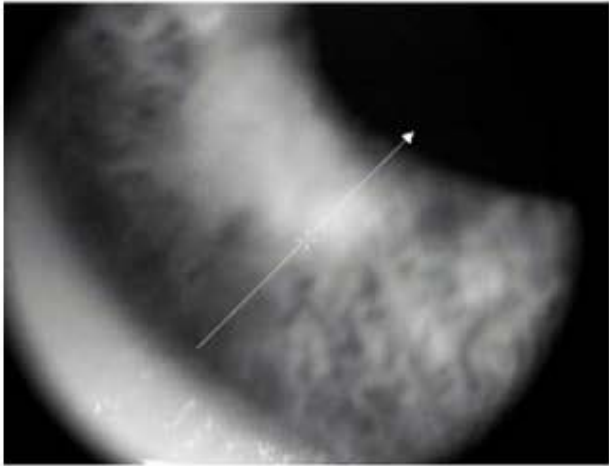


Optometry

NEW SOUTH WALES

AUSTRALIAN CAPITAL TERRITORY





ANSWER

Suspicious iris naevus.

Iris naevi are relatively common pigmented lesions on the iris. Though generally innocuous, they may rarely convert to iris melanomas and therefore must be examined and monitored carefully.

Shields et al, 2013 devised an easy mnemonic to recall features associated with higher risk of conversion to malignancy:

- A- Age (presentation < 40 years)
- B- Blood (hyphema)
- C- Clock hour-inferior location
- D- Diffuse configuration
- E- Ectropion Uveae
- F- Feathery margin

Other features that may represent a risk factor for malignancy include any iris distortion, anterior chamber cells or flare, dilated episcleral vessels, vascularisation or focal cataract. It should also be noted that pigmented iris lesions greater than 3mm in diameter or greater than 1mm thickness increases the likelihood of a choroidal melanoma.

Gonioscopy is important in the assessment of elevation or expansion of iris naevi and to exclude invasion of the angle in more peripheral presentations. In this case, gonioscopy shows ectropion uvea which is a condition where the iris pigmented epithelium curls around the margin of the pupil to reach the anterior surface of the pupil margin. This results in distortion of the pupillary margin as noted on the anterior eye photo and is one of the risk factors for malignancy identified by Shields et al above.

UBM can be used to differentiate a solid mass such as the one in this case from an iris cyst which is acoustically empty. Iris naevi appear as lowly reflective surface plaques such as is seen here. The thickness of the naevus can also be estimated, and in this case it is approximately 1mm thick. Additionally, the UBM image shows a 'Lion's paw' appearance, which is a posterior extension of the iris, delimited by the lens. This appearance should raise suspicion of a possible nodular melanoma.

Traditional OCT can be used in these cases to demonstrate thickening and iris contour however iris penetration is relatively poor and therefore is less helpful in differential diagnosis compared to UBM or anterior specific OCT.

This naevus exhibited the established risk factors of inferior clock hour location, ectropion uvea, iris distortion and a "lion's paw" appearance on UBM. Due to these suspicious features, this patient was referred to an ophthalmologist for an opinion on management.