The eyes have it? Ophthalmology Case Discussion

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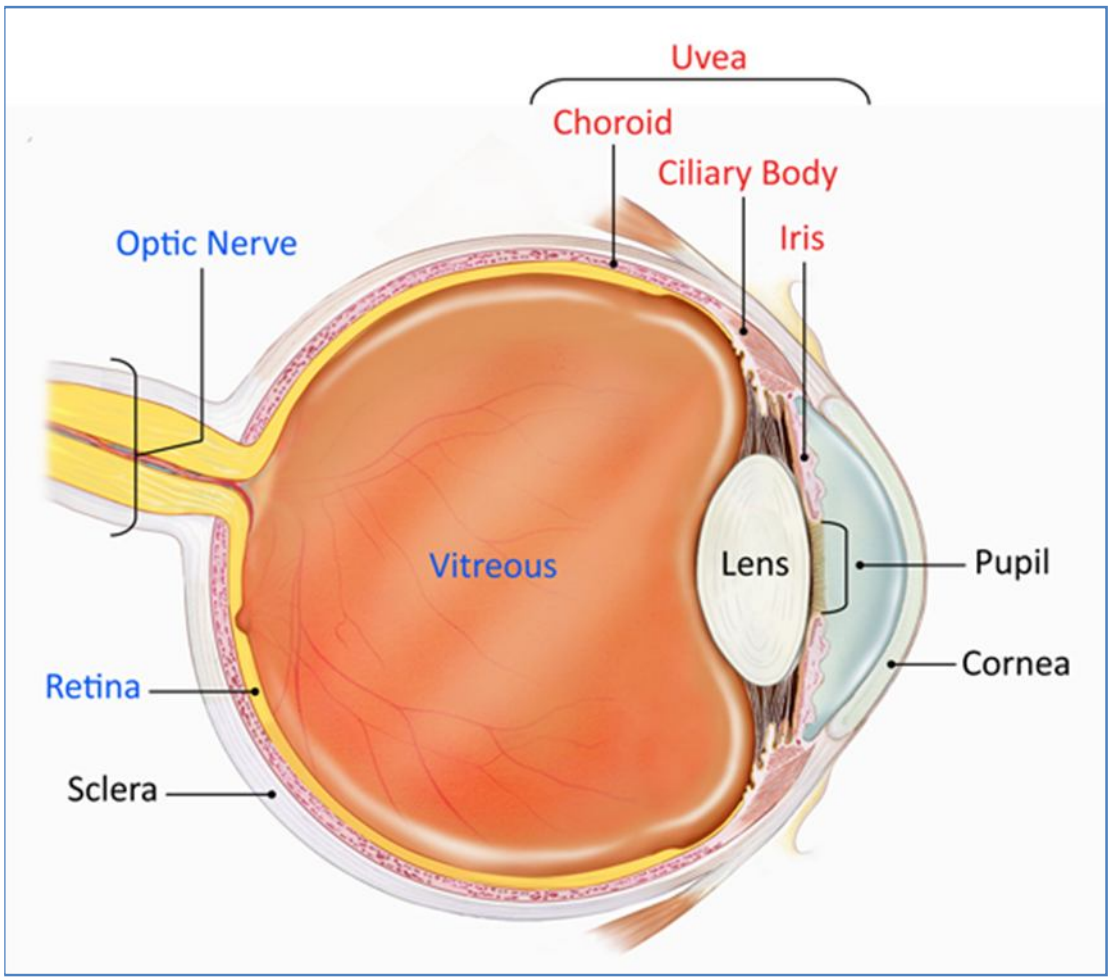
Instructions for Small Group Work

- Case based discussion which is meant to be an 'ice- breaker'
- It is shared learning and so remember its double credit points
- Everyone has different levels of knowledge of ophthalmology—(mine is not good!)- hopefully everyone will learn something!
- Elect a spokesperson for each table, have 3 learning points to feedback
- Spend about 5 minutes on each page, then move on to the next page.
- It is an unfolding story, so please do a page at a time, or you will find out all the answers and spoil your learning experience.
- The case is a few years old, but hopefully still relevant.



Patient Scenario

Denise, a 49 year old lady, comes to see you because she has recurrent red, sore eyes.

She has been seen by a variety of doctors in the past for the same problem and had 'drops' given, which did not help, although her symptoms have never been as bad as they are now.

The notes, stretching back over about 18 months, say 'conjunctivitis' and 'allergic conjunctivitis'.

She has had chloramphenicol, fucithalmic, azelastine and opticrom, none of which worked fully.

What is the minimum clinically and medico-legally safe entry that can be made on patients' records re sore red eyes?

What advice do you give re eye drops for 'conjunctivitis'?

History

How long the symptoms have been present, are they getting better or worse in time, and has the patient had these symptoms before?

Is the pain discomfort or actual pain, how severe?

Is there photophobia?

Is there a past history of eye problems or surgery?

Are there any physical health problems, or medications

Is the patient Contact lens wearer?

Is there a history of Occupation/welder/FB/hobbies/Trauma?

Is there a visual loss, double vision or photophobia?

Examination

BP

Pupils equal and react to light and accommodation

Comment about the redness, central, peripheral

Comment about the anterior chamber—clear or cloudy

(Eye movements, visual fields, ophthalmoscope finding, visual acuity, dip urine, flurosceine and rose Bengal if not apparently straightforward conjunctivitis)

I use the 48 hr rule for eye drops 'they should work in 48 hrs, when the eyes are better, continue the drops for 48 hrs. If the drops don't work in 48 hrs, or your symptoms get worse or your vision is affected, please return'.

PLEASE TURN TO NEXT PAGE FOR THE NEXT STEPS

Page 3

There was no record of any of this in the notes, although I have to say that Denise was not particularly forthcoming. She had no past history of note, but I did 'worm' it out of her that her vision was blurred and her left eye was very painful, not just gritty. Her right eye was also sore, but not as severe as the left. She complained of seeing 'floaters' in her left eye, and admitted that her symptoms had become progressively worse for months, but she did not like seeing the doctor!

The appearance of her left eye was as shown

Her vision is 6/12 L 6/6 R

BP140/90

Urine dipstick normal

Eye movements normal, but painful.

Fundus not visualised due to photophobia.

What can you see, and what would you do next?

There is circum limbic erythema, the pupil is irregular, the anterior chamber is cloudy, and there is an hypopyon.

I referred her urgently to ophthalmology. I spoke to the clinic nurse and the patient was seen a few days later.

The diagnosis was uveitis—she was given prednisolone eye drops and atropine.

What is uveitis and why atropine?

What are the implications of this diagnosis?

Uveitis is inflammation of the uvea, the middle layer of pigmented vascular structures of the eye, including the iris, ciliary body and choroid. It is divided into:-

Anterior uveitis, which is commoner in young and middle aged people, who are healthy, but it may be associated with inflammatory conditions. It may be unilateral.

Intermediate uveitis, which affects young adults mainly. The centre of the inflammation is the vitreous; this type of uveitis is associated with inflammatory conditions and infections.

Posterior uveitis; which is the least common variant, and may involve the retina and choroid (chorioretinitis). There are many infectious and inflammatory causes for this.

Pan uveitis where all three major parts of the eye are involved. Bechets disease is the most well known form; blindness can result if the condition is left untreated.

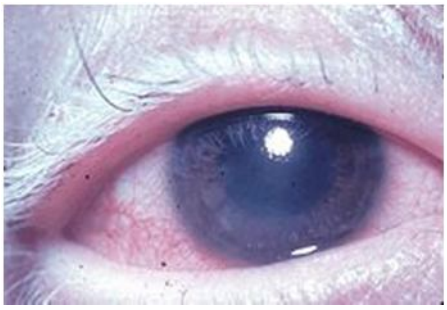
So the implication is does she have a chronic inflammatory condition or infection?

She needs treatment to prevent blindness and glaucoma. Atropine is used to prevent the iris sticking to the lens, and hence cause the formation of synechiae.

The diseases associated with uveitis are:-

AIDS	Ankylosing spondylitis/HLA B27
Bechet's syndrome (autoimmune vasculitis)	Cytomegalovirus
Herpes Zoster	Histoplasmosis
Kawasaki disease	MS
Psoriasis	Rheumatoid and other forms of inflammatory arthritis
Sarcoid	Syphilis
Toxoplasmosis	TB
Ulcerative colitis	Vogt Koyanagi Haradas disease (T –cell mediated autoimmune disease causing vitiligo and poliosis)

Shown below—iritis and poliosis (loss of hair pigment)



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Denise hated going to the hospital, but nonetheless, went, and had all the tests and complied with her eye drops. There were no other physical findings apart from the eye signs.

Her auto-immune profile was normal, FBC showed no signs of infection, RF negative, HLAB27 negative, but ESR was 24.

The next time she went to the hospital, (eyes a lot better by the way) she saw the Registrar who ordered an ACE blood test.

Denise comes to see you for the result which is 294u/l (normal range8-53 iu/l)

What does this mean, and what else is missing from her investigations?

To be honest I didn't have a clue! Thank goodness for Google!

ACE is Angiotensin Converting Enzyme, manufactured in the lung endothelium.

Normal range in adults over 18 years is 8-53 u/l. It is higher in children and teenagers.

A level of 294 indicates active Sarcoid (when other symptoms are present). The granulomas increase the levels of ACE in the lung. (50-80% of patients with Sarcoid have elevated serum ACE levels)

It is usually used to monitor the effectiveness of treatment, rather than as a diagnostic tool.

A CXR is missing from the investigations, and possibly also a lung CT.

The CXR was normal. The consultant was pretty ticked off that she had missed the diagnosis. The registrar was no doubt smugger than usual! (No CT scan was done, but this was in the time when CT was used less often than it is now)

Denise had oral steroids and methotrexate. The Sarcoid 'burnt out' and her eyes are now 'quiet', although she does have sight impairment, and is of course at risk of glaucoma.

If there is time, what are the other symptoms and signs of Sarcoid? (If not look at page 8 later!)

Symptoms and signs of sarcoidosis

Dry cough and SOB

Blocked nose

Erythema nodosum

Joint swelling and pain

Skin rashes

Headache

Renal colic

TATT

Eye signs

Lymphadenopathy

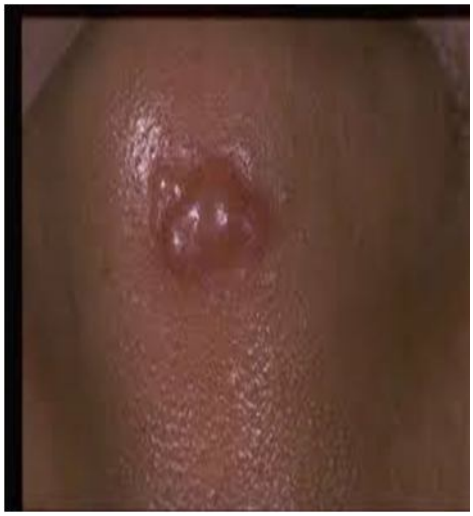
Heart problem/ palpitations

Parotitis

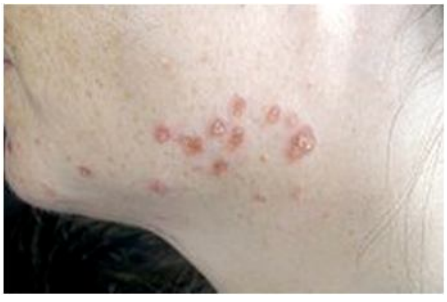
Hyper-prolactinaemia

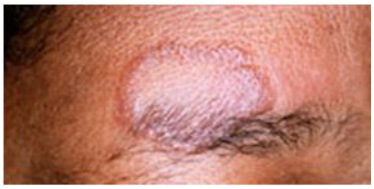
Pictures of skin manifestations of sarcoid

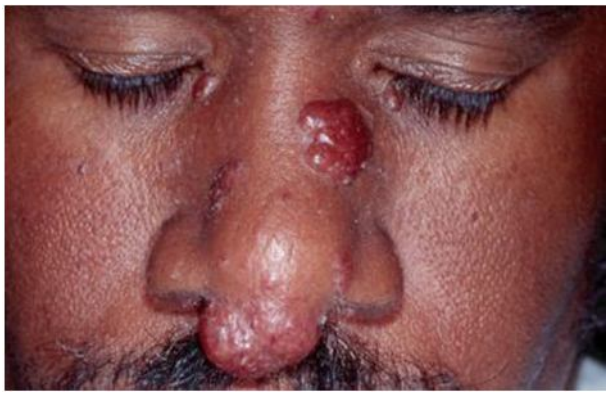
Nodular sarcoid



Annular sarcoid

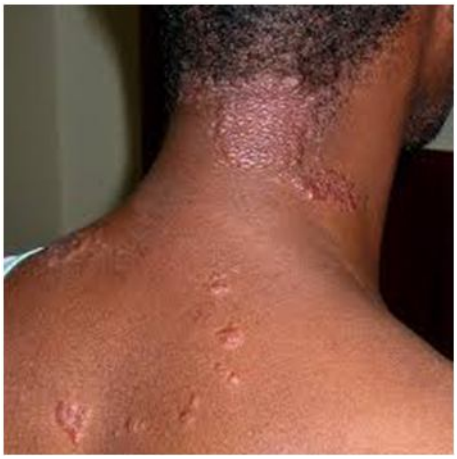


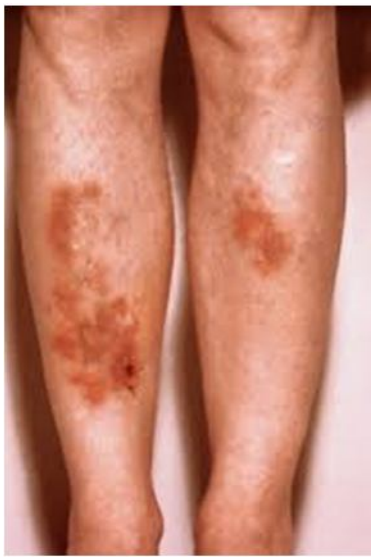




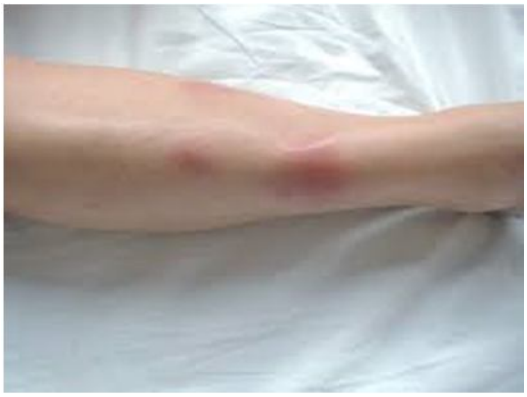
Pictures of skin manifestations of sarcoid

Lupus pernio





Erythema nodosum



References

- British Lung Foundation
- Google images
- NHS choices
- E-medicine.medscape.com (ophthalmologic manifestations of sarcoid)