University Hospitals Bristol NHS
NHS Foundation Trust

University of BRISTOL

Clinical Grand Round

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Case: presentation

Immunocompromised 60 year old male with persistent low grade pyrexia and diarrhoea

- Recent PMH
  - -9 months: BMT (matched allograft) for Transformed Follicular Lymphoma
  - -3 months: Graft versus host disease (GVHD) of skin and gut
    - Prednisolone & cyclosporin started
  - -2 months: persistant diarrhoea
    - Norovirus
    - Total parenteral nutrition (TPN) started
  - Recurrent TPN line infection

Case: presentation (2)

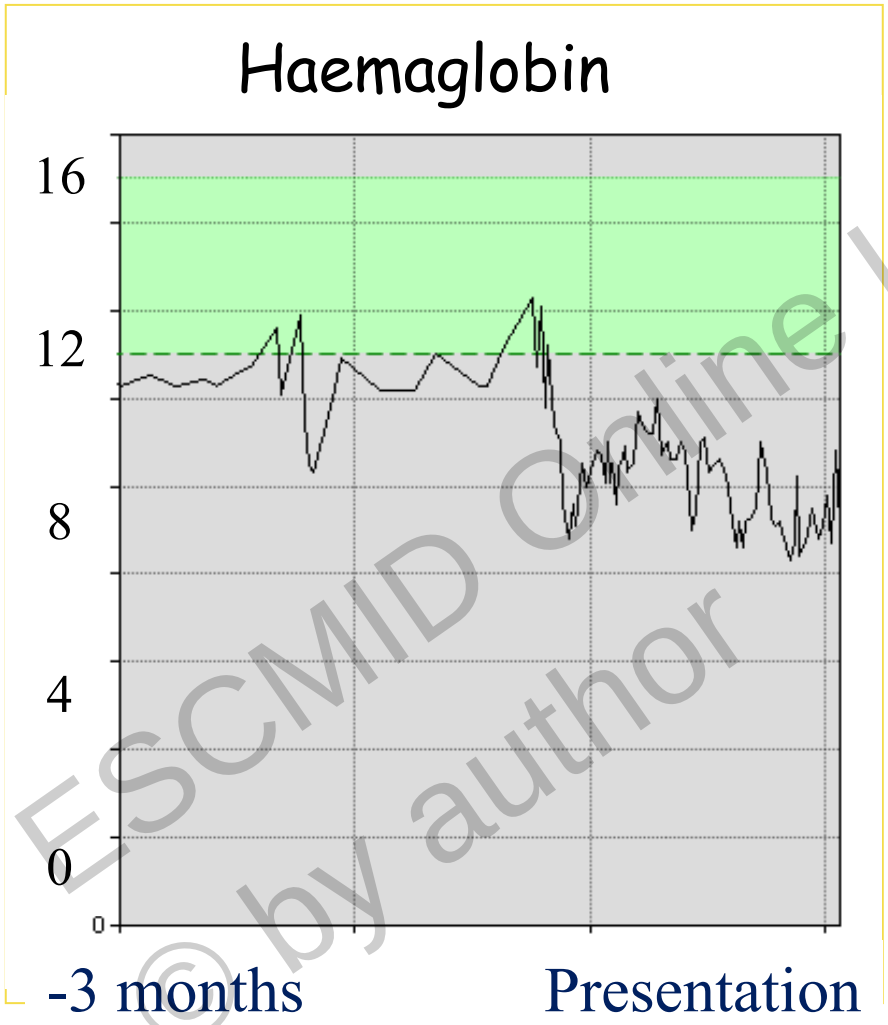
- Changes to standard post BMT prophylaxis
  - Tinnitus
    - Itraconazole prophylaxis switched to fluconazole
  - Neutropaenic
    - Cotrimoxazole switched to pentamidine
- PMH
  - Tuberculosis age 21
- Travel (holidays)
  - Three weeks in The Gambia
  - One week in Ibiza
  - Two weeks in Egypt
  - Two weeks in Greece

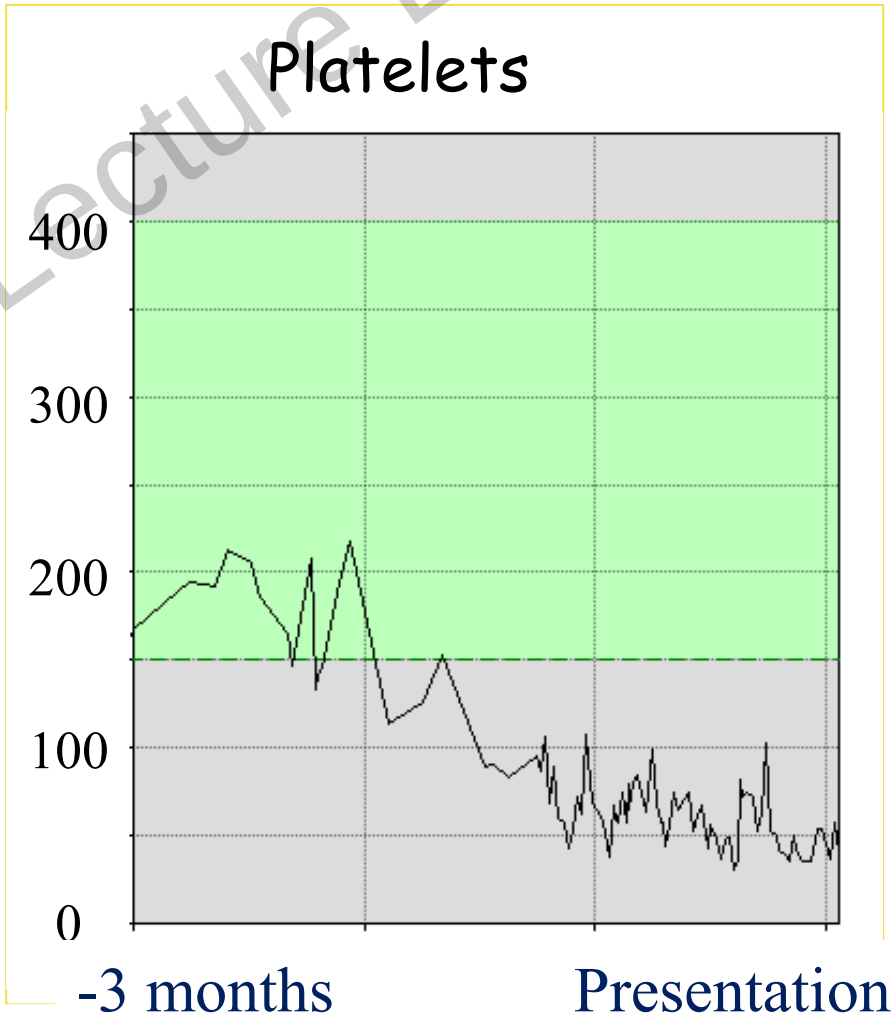
Laboratory results

- Haematology
  - WCC 7.8
    - Lymphocytes 0.4
    - Neutrophils 7.0
    - Eosinophils 0.2
  - Hb 7.4
  - Plt 56
- Biochemsitry
  - eGFR 64 (stable)
  - ALT 38
  - Albumen 26

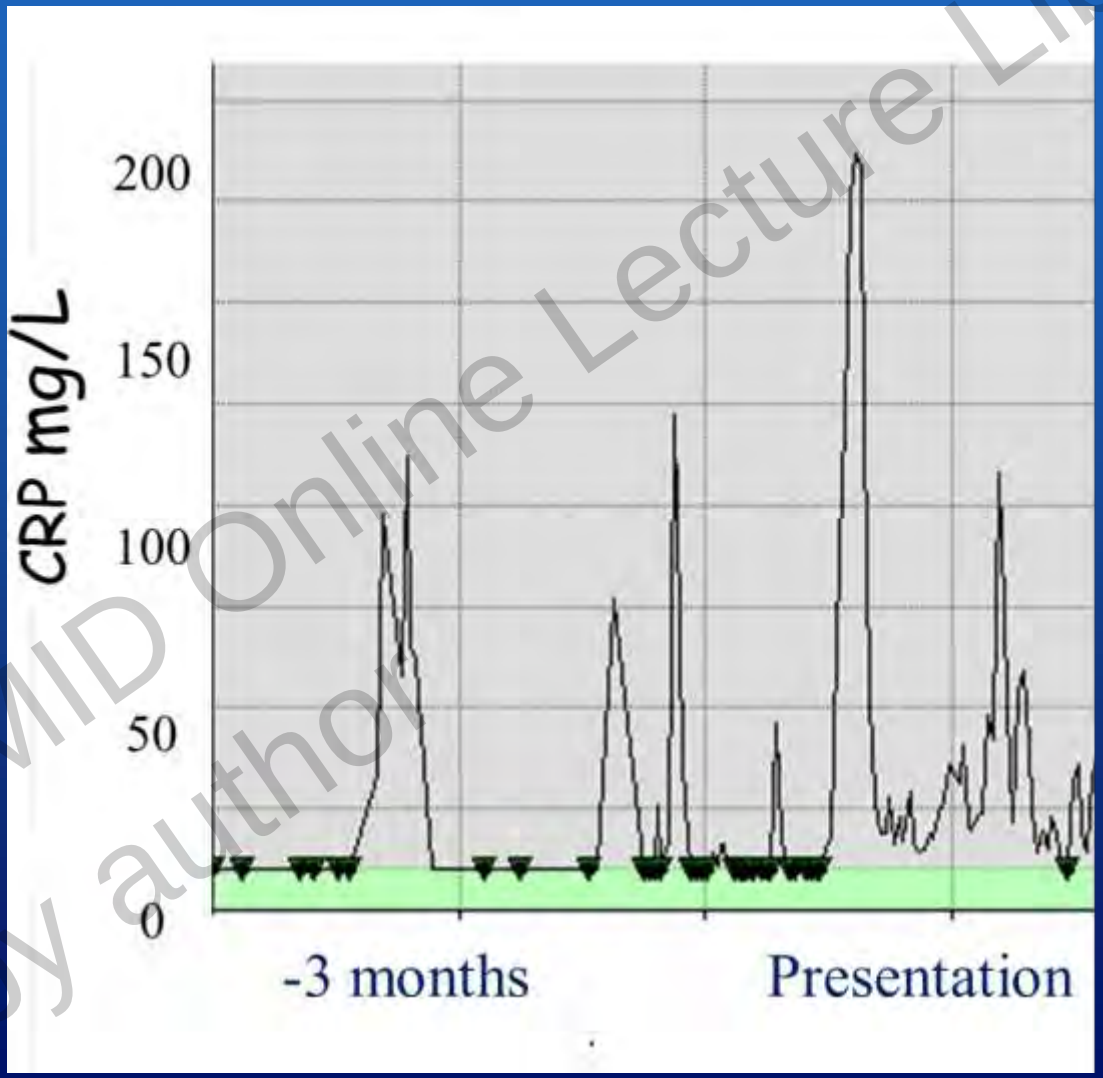
- Blood cultures
  - no growth
- Stool
  - norovirus PCR positive
  - Ova cysts and parasites negative
- Blood CMV and EBV PCR
  - negative or low copy numbers

Laboratory results (1)





Laboratory results (2)



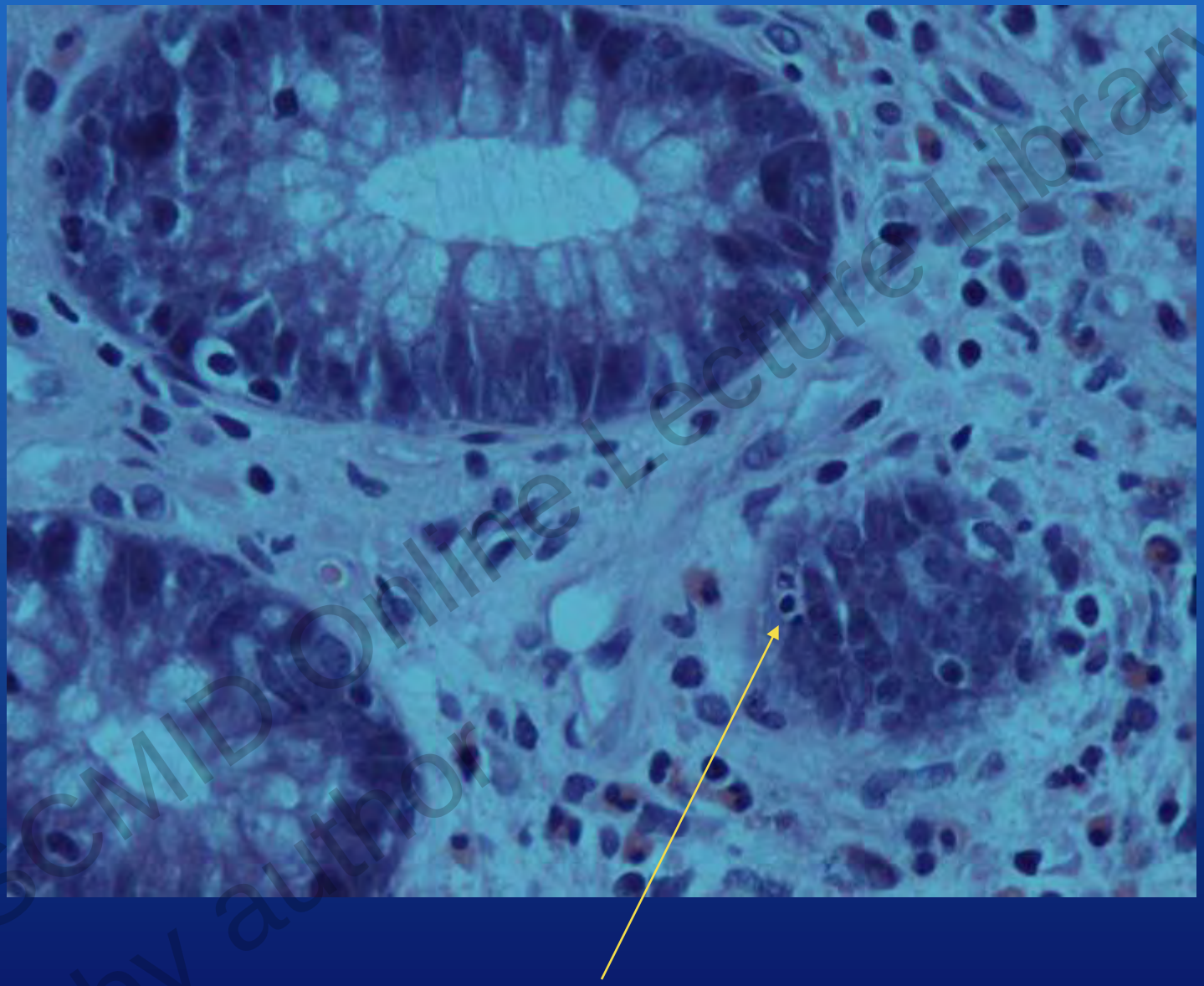
Recent histology findings

- -3 months
  - Flexible sigmoidoscopy

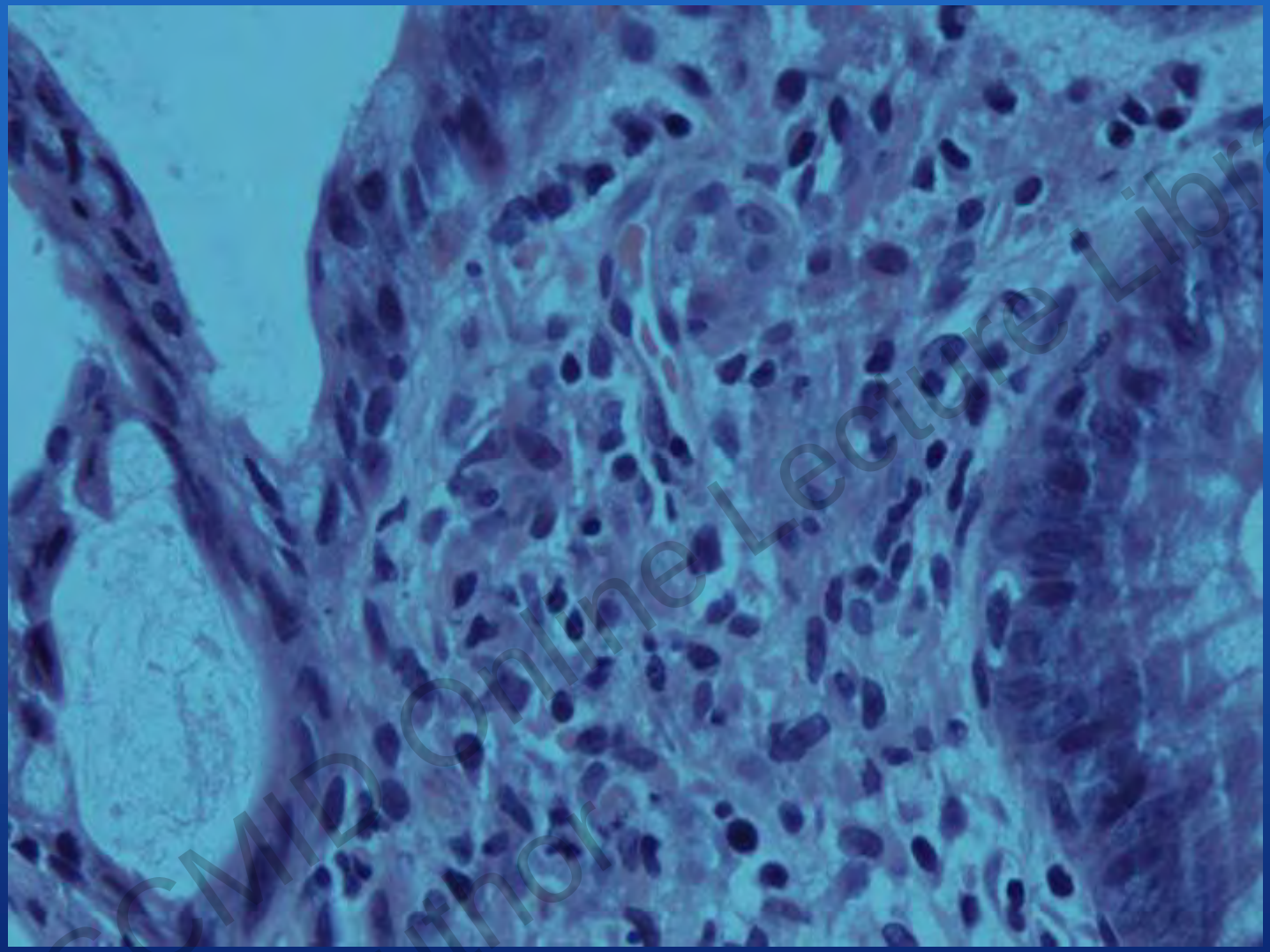
GVHD, granulomas.

- -1 month
  - Flexible sigmoidoscopy

No GVHD, No viral inclusions or acid fast bacilli, 'two loose epithelioid granulomas'



Colon biopsy at -3 months, apoptotic bodies at base of crypt, suggestive of GVHD



Colon biopsy at -3 months showing granulomas. “Granulomas may sometimes be seen in graft versus host disease”

Radiology findings

- CXR: normal
- CT chest abdomen and pelvis: normal

Questions

- What would you do next?

Our thoughts

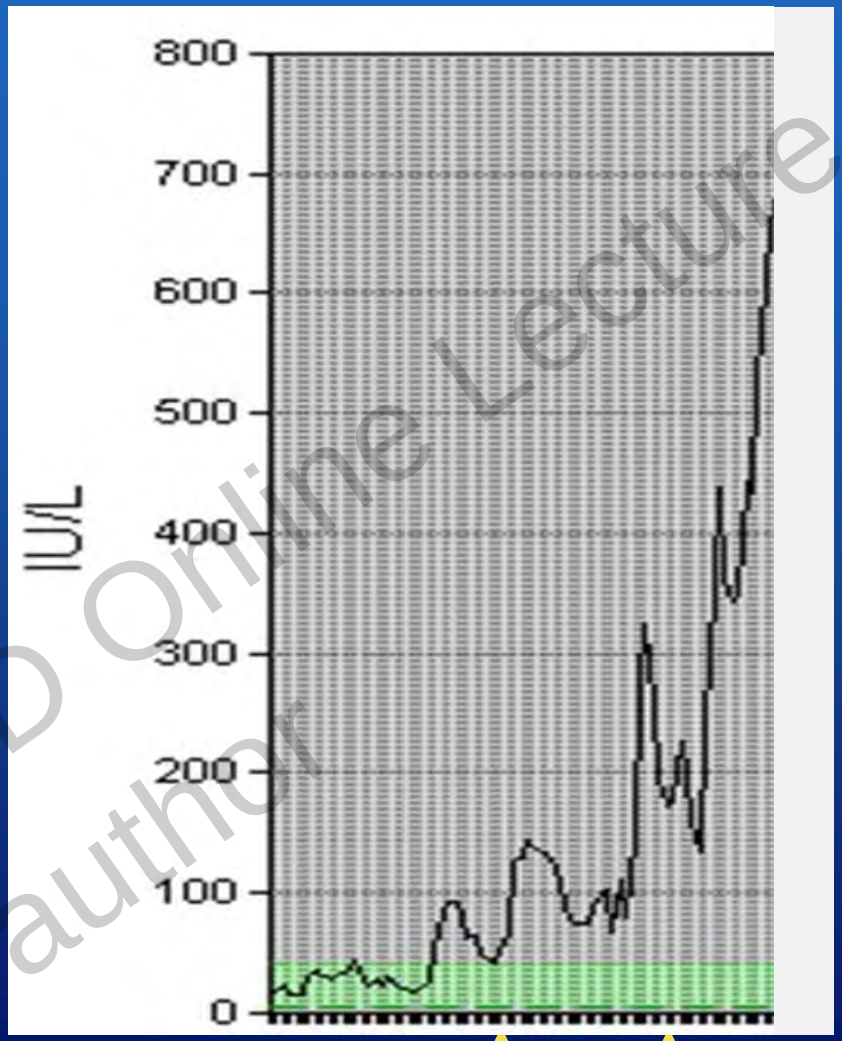
- To explain diarrhoea, persistent temperature, new CRP rise, anaemia and thrombocytopaenia.

1. Relapse of lymphoma
2. Relapse of graft versus host disease
3. Combination of norovirus, plus drug toxicities
4. Occult infection
   - Tuberculosis, CMV colitis, non-tuberculous mycobacteria, dimorphic mould, toxoplasmosis.

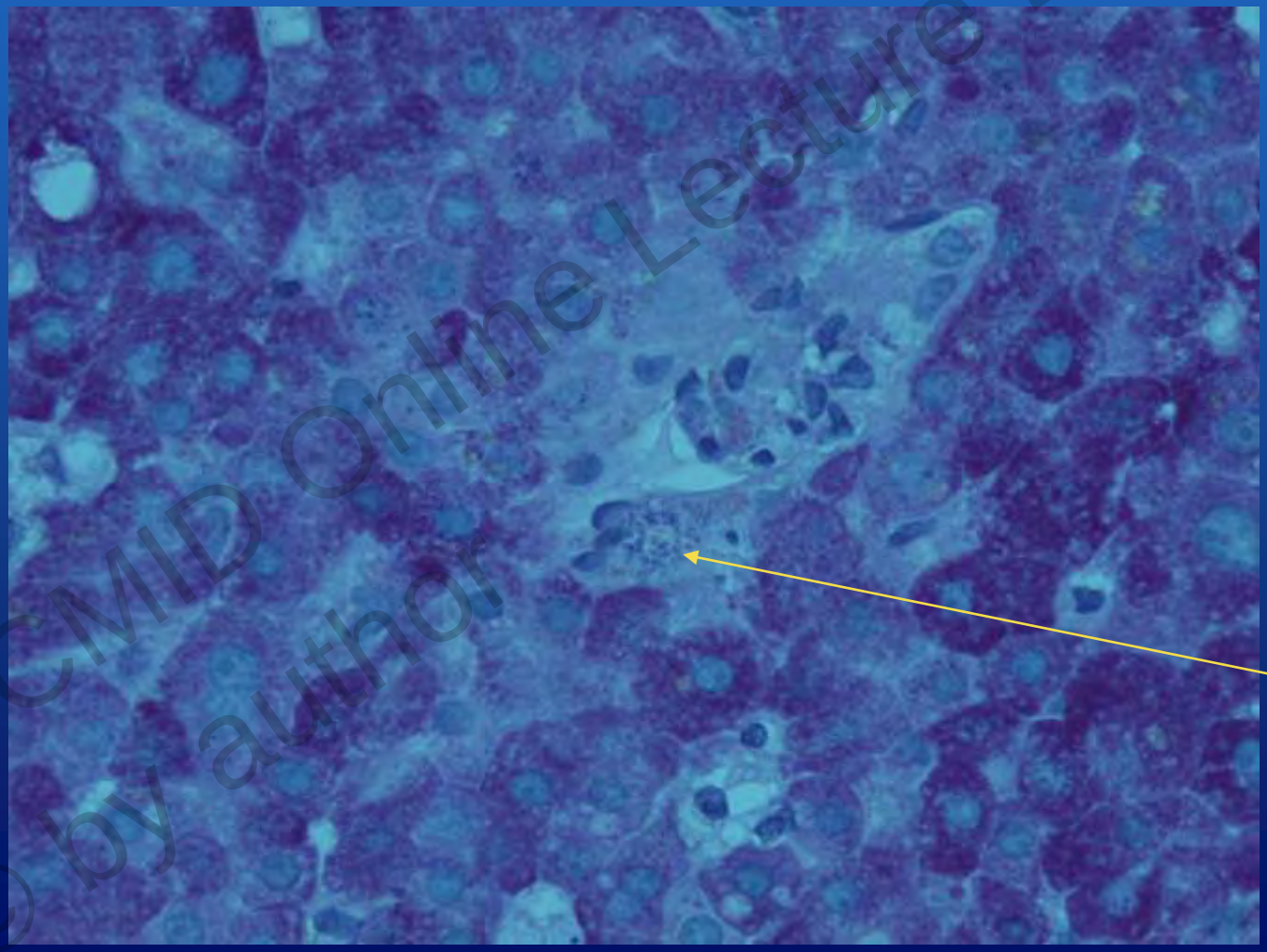
Further investigations

- Colonoscopy, gastro-ileoscopy
  - Ten biopsy samples taken for histology and culture including mycobacterial culture.
- Bone marrow trephine for
  - Histology
  - Culture for mycobacteria and brucellosis
- Dimorphic mould serology

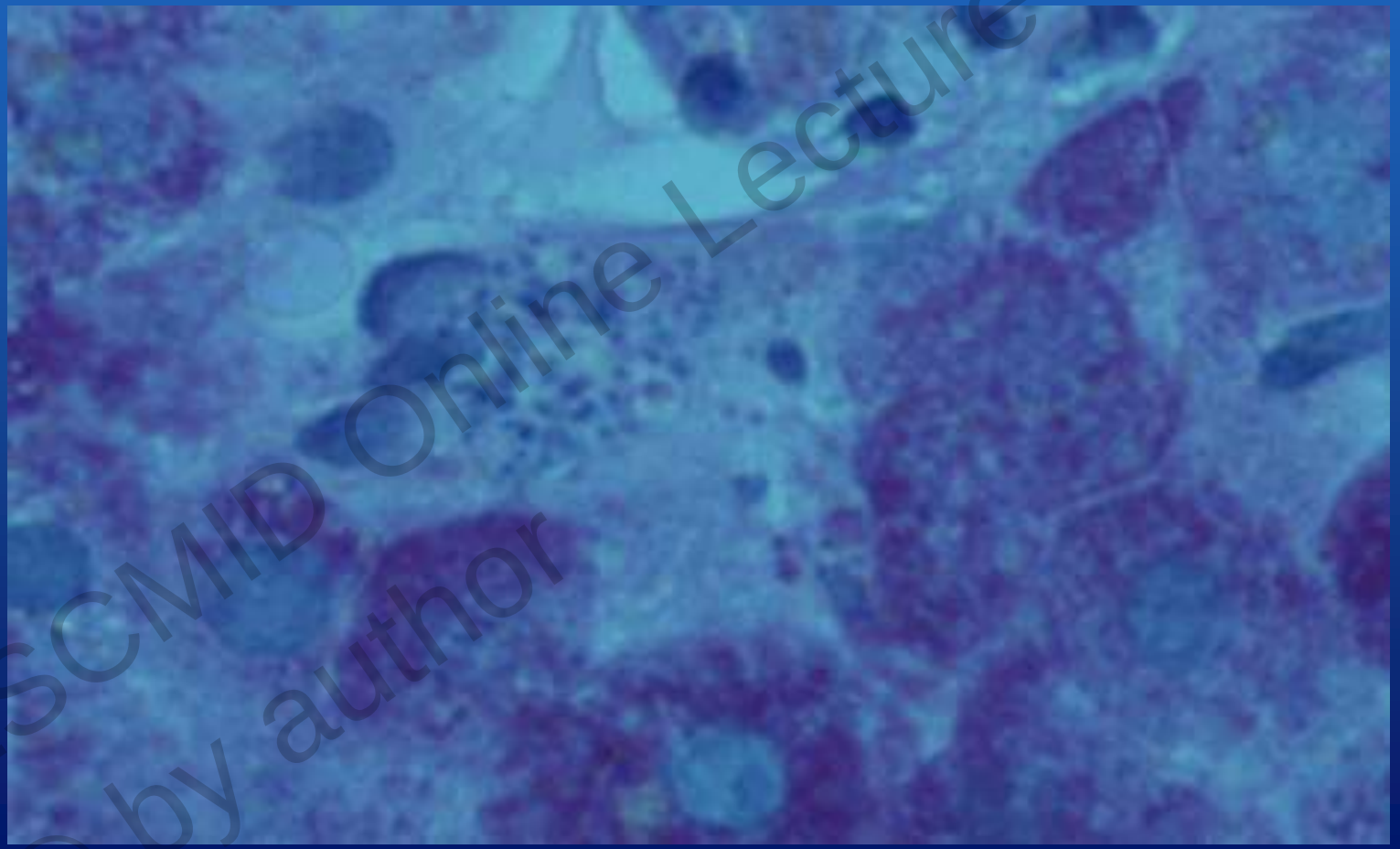
Liver Function



Liver biopsy



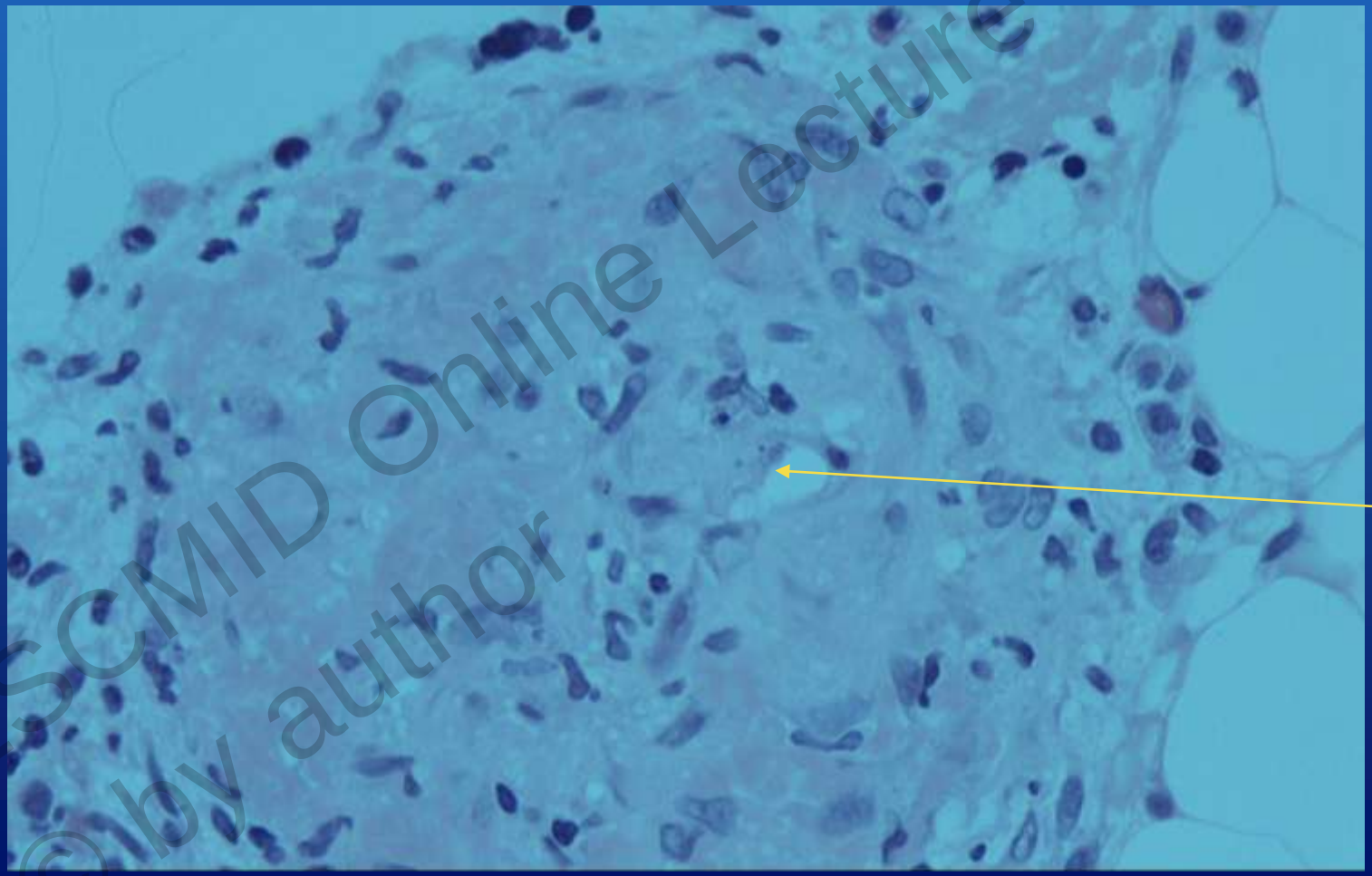
Liver biopsy



Question

- What is the diagnosis?

Pre BMT bone marrow



Question

- How would you treat his visceral leishmaniasis?

How we treated

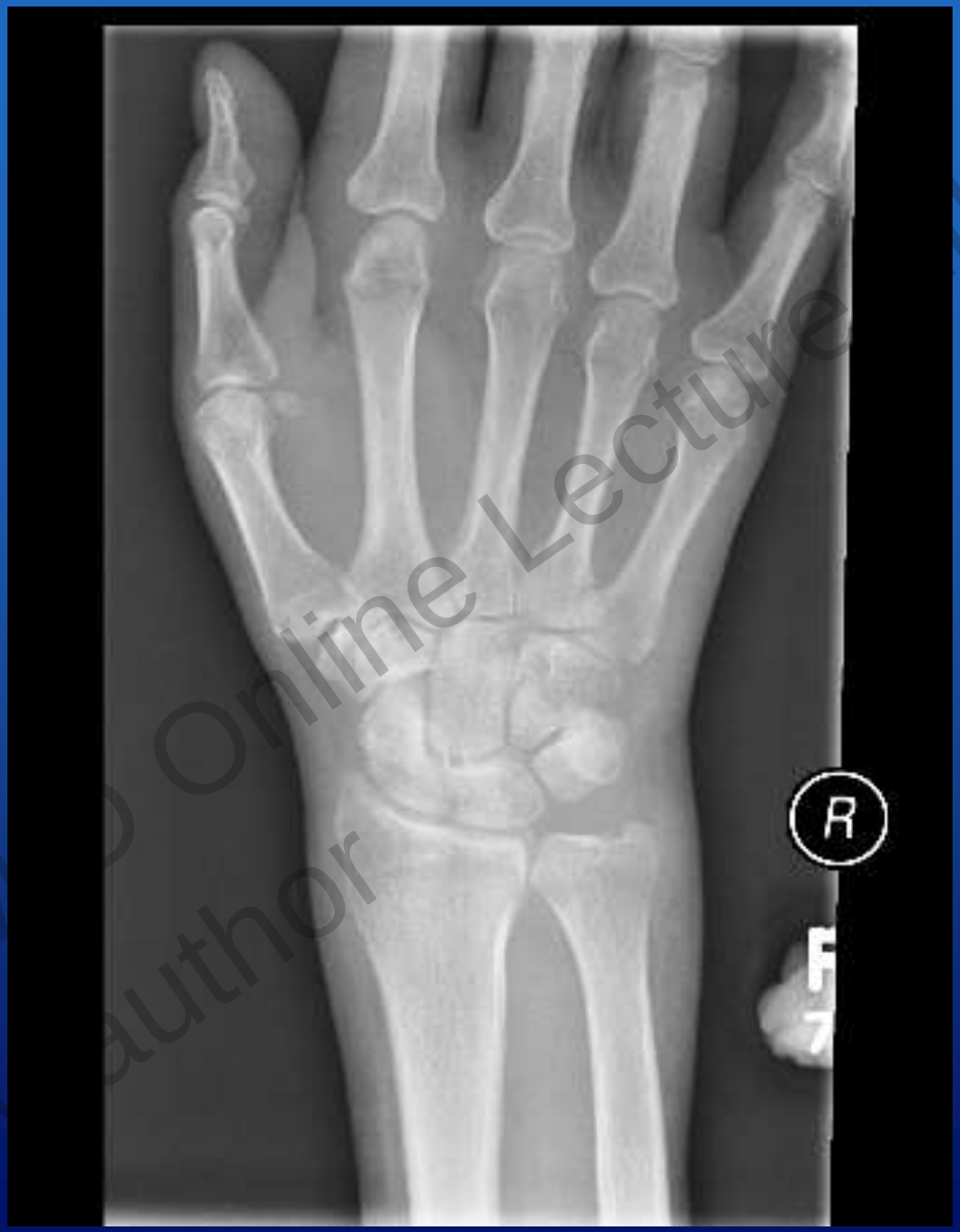
- Liposomal amphotericin B (ambisome) 4mg/kg per day on days 1-5,10,15,20,25,30.
  - Ongoing diarrhoea, malnutrition and severe debility
- End of treatment course discharged home with palliative care, no secondary prophylaxis.

1 year later….

- Extensive rash
- Joint swelling

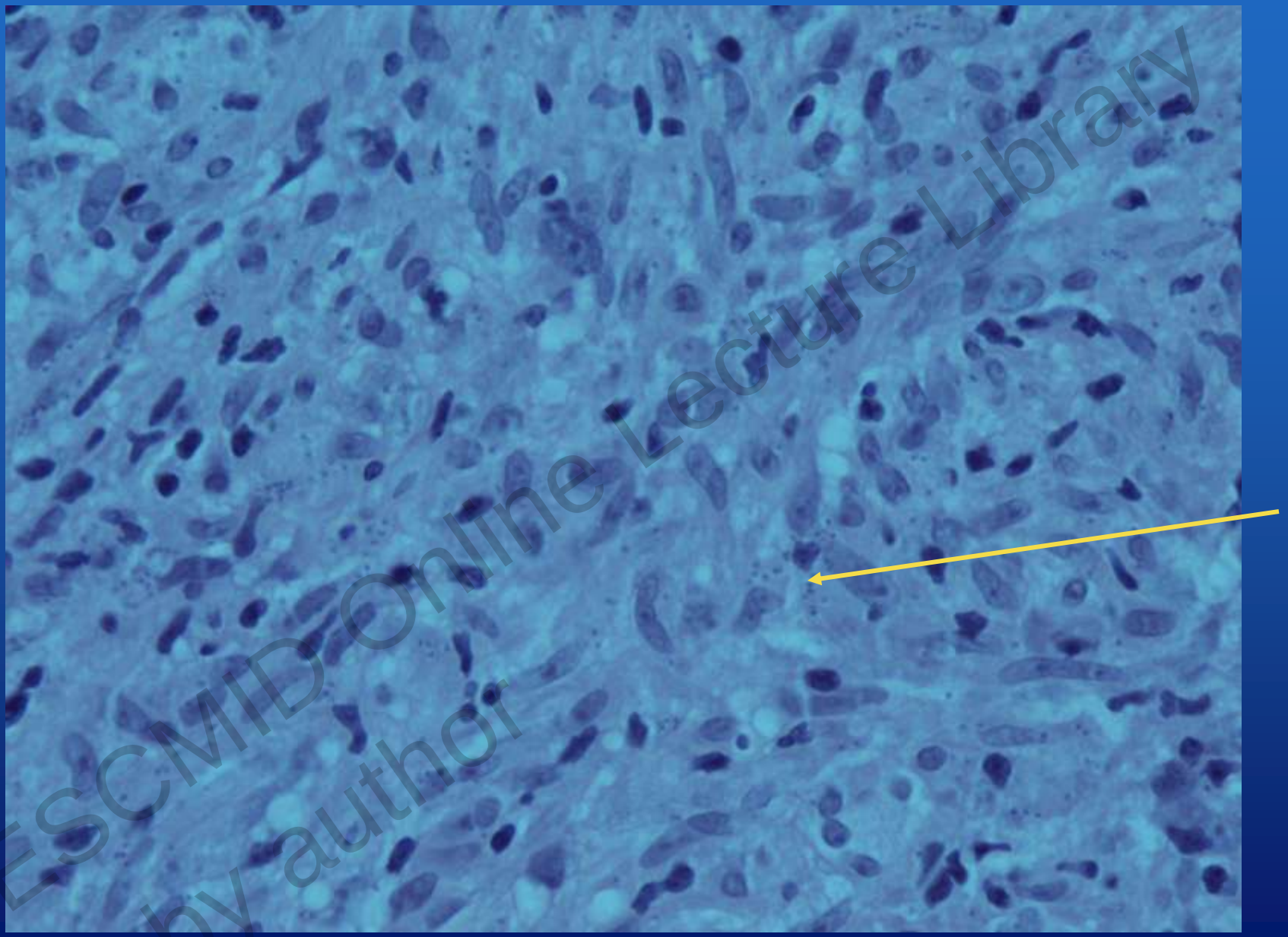
Online Lecture Library

Slide withheld at request of author



Question

- What would you do now?



Skin biopsy: “histiocytes teaming with amastigotes”

Question

- What would you do now?

Treatment of relapse

- Retreated with liposomal amphotericin B.
  - Good clinical response
- Secondary prophylaxis

Question

- Should all patients who live in or travel to a region where leishmania is endemic be screened for leishmania before bone marrow transplant?

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Acknowledgements

Patient

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