

Neutropenic patient with fever

- 29-year old woman was diagnosed with acute lymphoblastic leukemia (ALL) in february 2007
- The patient was hospitalized and underwent leukocytapheresis and chemotherapy
- She was given a prophylactic regimen:
 - Fluconazole (200 mg/day OS)
 - Valaciclovir (500 mg/day OS)
 - Imipenemen (500 mg x 4/day IV)
- On day 6 after the beginning of chemotherapy she was still febrile
- Between day 7 and day 12 she became agranulocytic and presented diarrhea caused by *C. difficile* which was treated with metronidazole (500 mg x 3/day OS)

- On day 15 (while she was still febrile) a blood culture (performed three days before) yielded:

- Enterococcus faecium*
 - Candida tropicalis*

- The patient started :

- Vancomycin + gentamicin
 - Caspofungin (70 / 50 mg/day IV)

- Etest:** FLU, 2.0 mcg/ml; VORI, 0.12 mcg/ml; POSA, 0.06 mcg/ml; AMB, 0.5 mcg/ml; CAS, 0.06 mcg/ml;

- On day 24 cutaneous erythematous lesions appeared on the left thigh direct observation of the skin biopsy negative, blood cultures negative

- Between day 26 – 28 she underwent a worsening of the general state with the appearance of other cutaneous lesions, many of them with a necrotic center, the therapy was changed as follows:

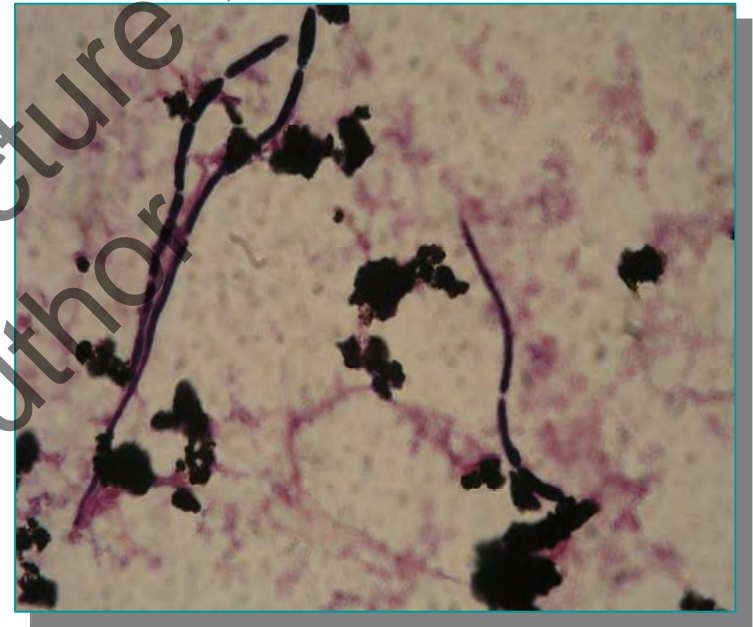
- Meropenem (1 g x 3/day IV)
 - Teicoplanin (400 mg x 2/day IV)
 - Liposomal AMB (3 mg/kg/day IV)



DAY 30

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Blood culture on day 30



Gram stain from blood culture

Liposomal AMB was increased to 5 mg/kg/day on day 30

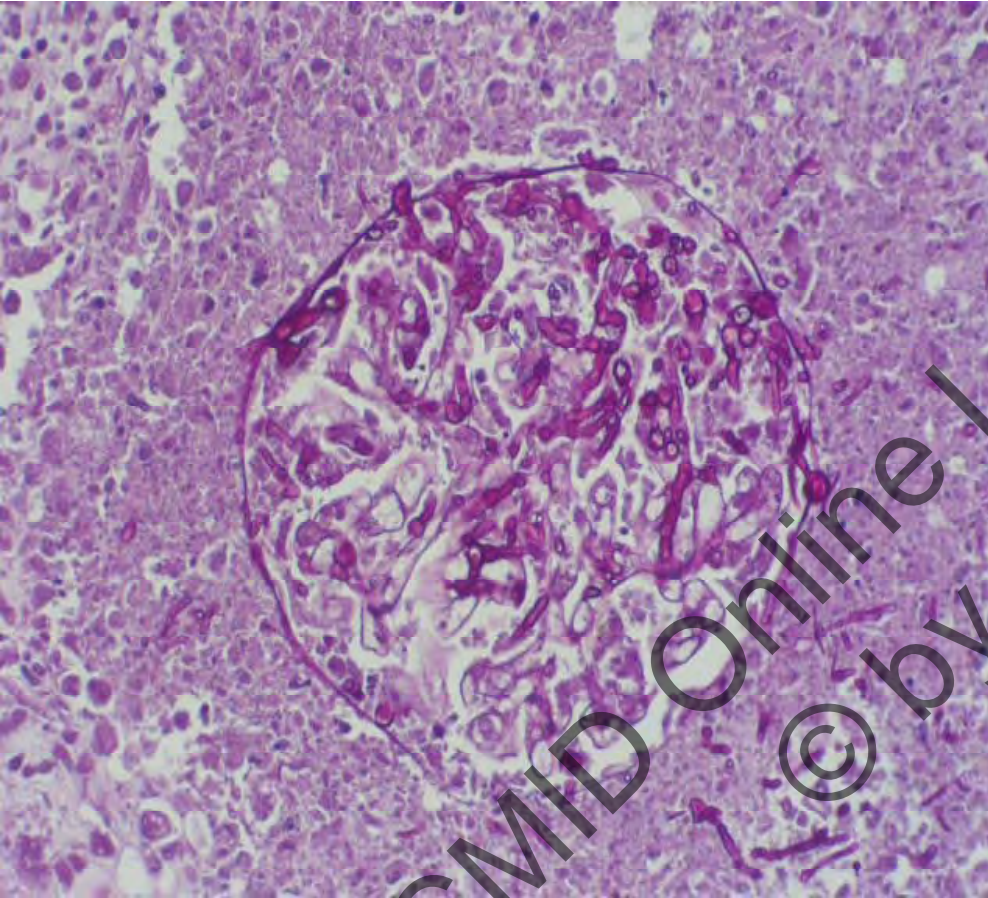
- Within the next few days the general state of the patient decreased dramatically, agranulocytosis was always persistent and she died after 12 days of the first appearance of cutaneous lesion



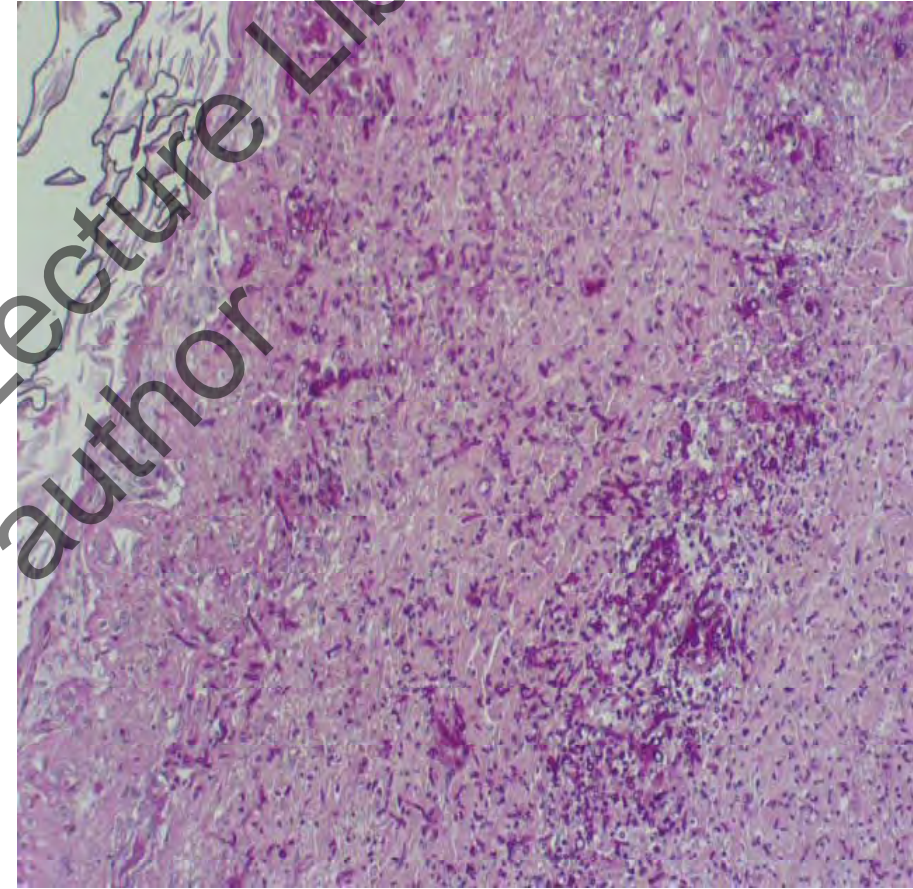
Fusarium solani

Histopathology: septate hyphae

(similar to *Aspergillus*)



Kidney (PAS)



Skin (PAS)