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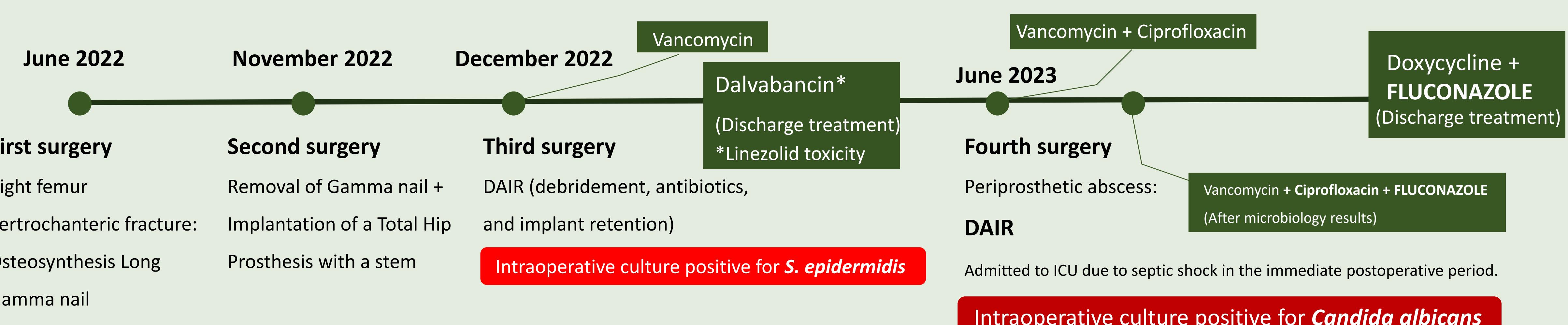
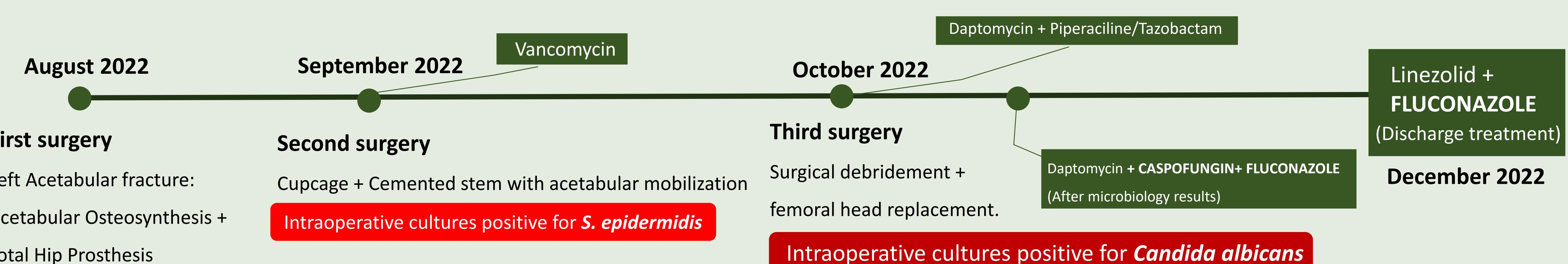
BACKGROUND

Periprosthetic infections caused by *Candida* species in orthopedic surgeries present formidable hurdles due to biofilm formation and resistance to standard treatments. Effective management necessitates multidisciplinary strategies for the prevention, diagnosis, and treatment of patients with this rare but increasingly frequent cause of infection.

CASE(S) DESCRIPTION

A) Medical history

Early prosthetic hip infection



B) Microbiological diagnosis

In both cases, the initial isolation of *Candida* species was achieved from joint fluid **previously inoculated in a blood culture bottle**. The bottles were incubated at 37°C under **aerobic** conditions using the **BD BACTEC™ FX system**. Following a positive result, Gram staining was conducted, and *Candida albicans* was subsequently identified through the **FilmArray PCR Sepsis (BCID) panel**.

Patient	Samples	Intraoperative culture positive for <i>Candida albicans</i>		Isolation/Detection *MALDI-TOF MS/Filmarray PCR Sepsis	Time to isolation (hours)
		Suprafascial			
Case 1	7 samples 4 Positives 3 Negatives (Deep tissue, 2 Intra-articular samples)	Subfascial		Thioglycollate broth subculture	96
		Synovial fluid (2 aerobic bottles)		Direct plates	72
				Blood culture bottles + molecular detection*	30 + 2*
Case 2	7 samples 2 positives samples 5 Negatives (Subfascial, Posterior and Distal zone samples, Peritrochanteric sample, Sonicated Trochanteric Screw)	Synovial fluid No bottle inoculation		Thioglycollate broth subculture	96
		Synovial fluid (1 aerobic bottle)		Blood culture bottles + molecular detection*	27 + 2*

Table 1. Microbiological diagnostic features of *Candida albicans* isolation.

* Samples, with the exception of the synovial fluids, were inoculated onto agar plates and thioglycollate enrichment medium, which will be subcultured if macroscopic signs of growth are observed or systematically after 5 days.

CONCLUSIONS

Awareness of **risk factors**, such as previous bacterial prosthetic infections, antibiotic exposure, multiple interventions and comorbidities is important to understand *Candida* as a pathogen in prosthetic joint infections.

- Both patients had a history of **chronic *Staphylococcus epidermidis* infection** and a recent history of multiple surgeries.
- In both cases fluconazole was chosen as suppressive antifungal therapy at discharge. However, in **Case 1 there were new recurrences** and it was decided to change the treatment to caspofungin due to the suspicion of azole resistance. Guidelines recommend the association of an azole with an antifungal drug with antibiofilm activity such as candins or amphotericin.
- Inoculation of joint fluid in blood culture bottles **increases the sensitivity of the diagnosis and allows early detection** of the aetiological agent.

Future studies with larger numbers of cases will be necessary.