One-stage oblique lateral corridor antibiotic-cement reconstruction for Candida spondylodiscitis in patients with major comorbidities: Preliminary experience

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Disclosure

- I do not have any affiliations (financial or otherwise) to declare.

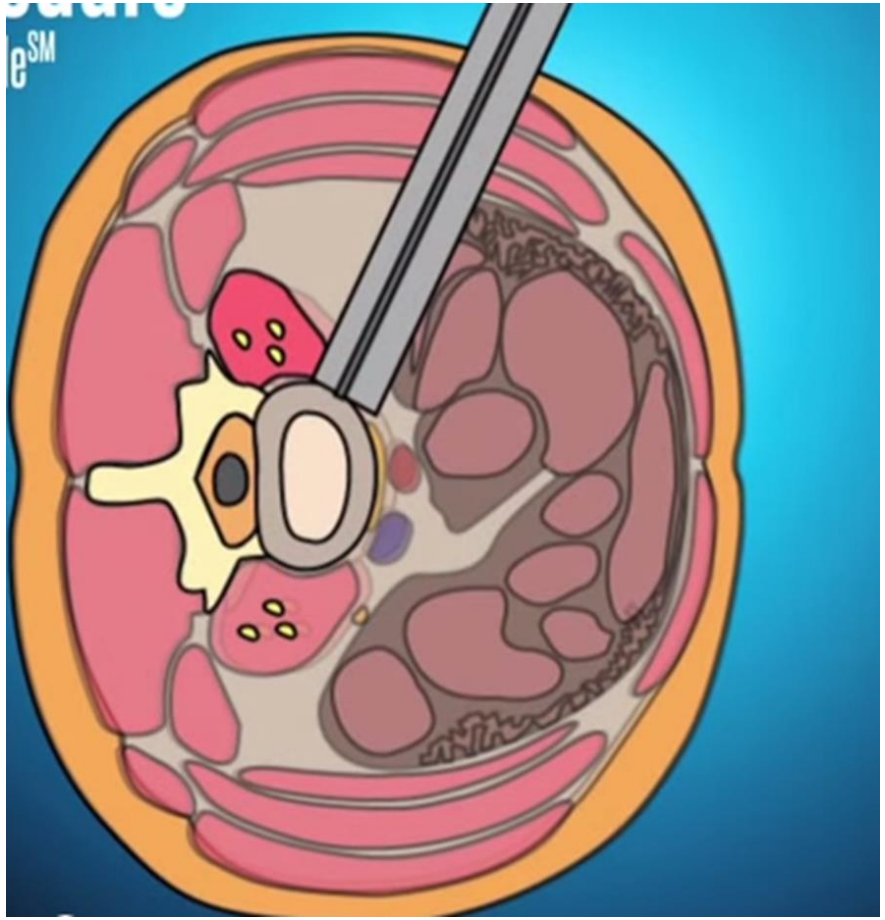
Introduction

- Fungal spondylodiscitis is rare (0.5%-1.6% of spondylodiscitis)
- No evidence-based optimal surgical approach for Candida spondylodiscitis
- Our preliminary experience in achieving spinal stability and infection control of Candida spondylodiscitis by one-stage surgical debridement via OLIF approach with interbody antibiotic-cement fixation

Sobottke, R., et al., Dtsch Arztebl Int, 2008.
Berbari, E.F., et al.,Clinical Infectious Diseases, 2015.

Population study

- 5 patients suffering from Candida albicans pondylodiscitis
- One-stage surgical debridement and stand-alone cement-only anterior spinal reconstruction through mini OLIF approach
- Continued anti-fungal therapy post-operatively



Clinical characteristics and surgical parameters of the 5 patients

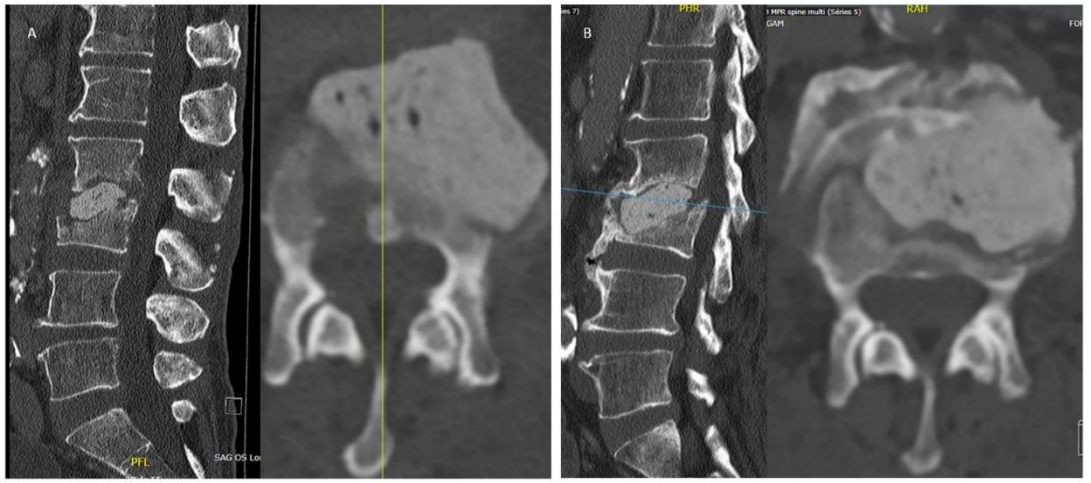
Case number	**1**	**2**	**3**	**4**	**5**
Age (years)/Sex	62/M	68/M	72/ M	64/F	55/ M
Back pain VAS	8	8	7	9	9
Leg pain VAS	2	3	8	6	7
Ambulatory status	non-ambulatory	< 5m with walker	non-ambulatory	non-ambulatory	10 m with walker
Level	L2-L3	L1-L2	L3-L4	L2-L3	L1-L2
Surgery(min)	137	260	180	250	240
Blood loss	200	150	100	200	150
Complications	No	No	No	No	No
Follow-up (months)	18	14	20	12	18
Comorbidities	Cardiac insufficiency, aortocoronary bypass, arrhythmia, diabetes	Atherosclerotic heart disease, coronary artery bypass graft, atherosclerotic vascular disease	Diabetes, lymphoma	Atherosclerotic heart disease, cardiac insufficiency	Diabetes, chronic cytopenia
Anti-fungal medications	Fluconazole, Caspofongine, Amphotericin B	Fluconazole	Fluconazole	Fluconazole	Fluconazole
VAS: Visual Analogue Scale					

Pre-operative and post-operative VAS score and ambulatory status

Case number		**1**	**2**	**3**	**4**	**5**
VAS back pain	Pre- op	8	8	7	9	9
	Post- op	0	2	1	3	2
VAS leg pain	Pre-op	2	3	8	6	7
	Post- op	0	1	1	2	2
Ambulatory status	Pre- op	Non-ambulatory	< 5 m with a walker	Non ambulatory	Non ambulatory	Walk 10 m with a walker
	Post-op	Independent walking with a cane	Independent walking with a walker	Independent walking with a walker	Independent walking with a cane	Independent walking without technical aid
Abbreviation: Pre-op: Pre-operative; Post-op: Post-operative						

Case 1

Pre-operative MRI and scan



3rd month and 6th month post-operative scan

Discussion

- Surgery for Candida spondylodiscitis with major comorbidities: Minimize operation time, blood loss and risk of complications
- Only anterior debridement and cement fixation first
- Posterior fixation later if required
- None of 5 cases required a supplemental posterior fixation and had radiological spinal stability at 12th-18th month post-op
- This is the first series of spinal fungal infection treated successfully by debridement and spinal reconstruction with cement via mini-open OLIF approach in combination with anti-fungal therapy.

Conclusion

- Stand-alone anterior debridement and spinal re-construction with cement through mini-open OLIF approach might be a safe and effective option for patients with spinal fungal infection and major comorbidities