Table 1. Summary of clinical and microbiological characteristics of clinical cases involving high-level daptomycin resistance (HLDR) in *Corynebacterium* species.

Year of report	Country	Species	Diagnosis	Bacteremia	Complication	Antibiotic (Dose of DAP)	Duration of DAP before resistance	Prior DAP MIC (μg/mL)	Alternative antibiotic	Mutation or alteration in *pgsA2*	Outcome	Reference
2009	Germany	*C. jeikeium*	Febrile neutropenia	Yes	No	DAP +CAZ (5–7.5 mg/kg/day)	8 days	N.D.	TGC+MEPM+CPFX	N.D.	Died	[13]
2014	U.S.	*C. striatum*	LVAD infection	Yes	No	DAP monotherapy (8 mg/kg/day)	17 days	0.125 Etest	LZD	N.D.	Survived	[7]
2016	U.S.	*C. striatum*	LVAD Infection	Yes	No	DAP monotherapy (6 mg/kg/day)	16 days	0.064 Etest	LZD	N.D.	Unknown	[15]
2016	U.S.	*C. striatum*	LVAD Infection	Yes	Subxyphoid abscess	DAP+LVFX (6 mg/kg/day)	3 months	0.125 Etest	N.D.	N.D.	Unknown	[15]
2017	U.S.	*C. striatum*	LVAD Infection	Yes	No	DAP monotherapy (6 mg/kg/day)	42 days	0.12 Etest	VCM	N.D.	Survived	[6]
2019	Japan	*C. striatum*	Intra-abdominal abscess	Yes	No	DAP+MEPM (3.7 mg/kg/day)	12 days	N.D.	VCM	Yes*	Survived	[10]

2022	Japan	*C. striatum*	Skin and soft tissue infection	No	No	DAP monotherapy (8 mg/kg/day)	10 days	N.D. (S) BDM***	N.D.	Yes**	Unknown	[8]
2024	France	*C. simulans*	Prosthetic valve endocarditis	Yes	Spondylodiscitis and acromioclavicular arthritis	DAP monotherapy (700 mg every 48 h)	5 days	0.032†	VCM +CPFX	N.D.	Survived	[16]
Our case	Japan	*C. striatum*	Prosthetic valve endocarditis	Yes	No	DAP monotherapy (6 mg/kg/day)	11 days	< 0.5 BDM***	TEIC +RFP	Yes**	Survived	-

MIC, minimum inhibitory concentration; CAZ, ceftazidime; MEPM, meropenem; TGC, tigecycline; LZD, linezolid; VCM, vancomycin; CPFX, ciprofloxacin; TEIC, teicoplanin; RFP, rifampicin; DAP, daptomycin; LVFX, levofloxacin; LVAD, left ventricular assist device; N.D., no data; U.S., United States; S, susceptible.

HLDR *Corynebacterium* species were defined by MIC of DAP at ≥256 μg/mL by Etest.

* The alternation of *pgsA2* was caused by point mutations.

** The alternation of *pgsA2* was caused by splitting due to IS insertion.

*** Antimicrobial susceptibility testing based on broth dilution method (BDM) according to CLSI document M45 (Dry Plate Eiken, Eiken Chemical Co., Ltd, Tokyo, Japan).

† MIC measurement method is unknown.

Table 2. Summary of *in vitro* research involving high-level daptomycin resistance (HLDR) in *Corynebacterium* species.

Year of report	Country	Species	No. of tested strain	HLDR rate	Incubation time	Mutation or alternation in *pgsA2*	Reference
2017	U.S.	*C. striatum*	50	100% (50/50)	Overnight	N.D.	[18]
2018	U.S.	*C. striatum*	8	100% (8/8)	24 hours	Yes*	[9]
2019	U.S.	*C. striatum*	14	100% (14/14)	24 hours	N.D.	[14]
		Other strains	62	16.1% (10/62)	24 hours	N.D.	
2021	U.S.	*C. striatum*	39	82.1% (32/39)	Overnight	N.D.	[5]
		Other strains	118	11.9% (14/118)	Overnight	N.D.	
2023	U.S.	*C. striatum*	7	71.4% (5/7)	16 hours	N.D.	[17]

HLDR, high-level daptomycin-resistant; DAP, daptomycin; LVAD; N.D., no data; U.S., United States.

Other strains indicate those other than *Corynebacterium striatum*.

* The alternation of *pgsA2* was caused by point mutations.