Table 1. Surgical characteristics and outcomes

Variable	sEEG	Hybrid	p-value
Pre-operative and intra-operative characteristics			
No. of procedures	44	99	
Mean age (SD)	34.6 (11.5)	33.6 (10.8)	0.642
Gender, male, n (%)	16 (36)	46 (46)	0.261
Prior cranial surgery, n (%)	14 (32)	15 (15)	0.022
Sidedness of implantation, n (%)			< 0.0001
Left	16 (36)	55 (56)	
Right	9 (20)	44 (44)	
Bilateral	19 (43)	0 (0)	
MRI deep lesions, n (%)	24 (55)	12 (12)	< 0.0001
Depth electrodes, n (±SD)	9.2 (3.2)	3.0 (1.9)	< 0.0001
Operative time, min (±SD)	389 (128)	475 (82)	< 0.0001
Post-operative outcomes			
Hemorrhagic complication, n (%)	3 (6.8)	7 (7.1)	0.956
extra-axial	0 (0)	7 (100)	0.002
intra-axial	3 (100)	0 (0)	
Neurological deficit at discharge, n (%)	2 (4.6)	0 (0)	0.033
EMU length of stay, days (SD)	7.0 (4.0)	7.6 (3.3)	0.041
Non-hemorrhagic complication, n/N (%)	2/16 (12.5)*	4/83 (4.8)^	0.238

*Includes sEEG patients resection

^Includes grid patients with resection

Table 2. Variables of hemorrhagic outcomes for sEEG and hybrid

Variable	Hemorrhage	No hemorrhage	p-value
Variables for sEEG			
No. of procedures	3	41	
Mean age (SD)	39.0 (23.6)	34.3 (10.6)	0.89
Gender, male, n (%)	1 (33)	15 (37)	1
Prior cranial surgery n, (%)	0 (0)	14 (34)	0.54
Laterality n, (%)			0.40
Bilateral	2 (67)	17 (42)	
Left	0	16 (39)	
Right	1 (33)	8 (20)	
Operative time, min (±SD)	445 (177)	385 (126)	0.50
Length of stay, d (±SD)	9.0 (4.6)	6.9 (4.0)	0.30
Depth electrodes, n (±SD)	7.7 (1.2)	9.2 (3.3)	0.51
Variables for hybrid			
No. of procedures	7	92	
Mean age (SD)	35.0 (12.3)	33.5 (10.7)	0.74
Gender, male, n (%)	3 (43)	50 (54)	0.70
Prior cranial surgery n, (%)	1 (14)	14 (15)	1.0
Left-sided implantation, n (%)	5 (71)	50 (54)	0.46
Operative time, min (±SD)	483 (50)	474 (85)	0.68
Total length of stay, d (±SD)	11.3 (2.3)	10.4 (3.3)*	0.20
Electrode contacts, n (±SD)	133 (21)	121 (29)	0.21

* Excludes two patients who did not undergo stage 2 resection during admission