ILAE EPILEPSY SURGICAL MENTORSHIP PROGRAM IN MONGOLIA

(FINAL REPORT)

SECOND VISIT- December 07-10, 2025 Ulaanbaatar, Mongolia

Mentors:

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Prof. Hideaki Shiraishi, Department of Pediatrics, Dokkyo Medical University, Japan

Local faculty:

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Dr. Altan-Ochir Sanjdorj, Neurosurgeon

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Phase 1: Virtual Case Discussions and Pre-Surgical Evaluation in Preparation for Epilepsy Surgery in Mongolia

As part of the ILAE Local Mentorship Program, the Mongolian epilepsy care team participated in a structured series of virtual case discussions and pre-surgical evaluations, guided by expert mentors from Japan—Prof. Kensuke Kawai, Prof. Naoto Kunii (Department of Neurosurgery, Jichi Medical University, Japan), and Prof. Hideaki Shiraishi (Department of Pediatrics, Dokkyo Medical University, Japan).
Between July and December 2025, a total of 3 virtual meetings were conducted. During these sessions, **13** patients with drug-resistant epilepsy were reviewed in detail, with a focus on diagnostic interpretation, imaging analysis, and surgical candidacy assessment.

Table 1. Epilepsy patients discussed during online meetings (July to December, 2025)

	№	Age/Sex	Onset	Cause	Seizure type	EEG findings	MRI findings	Discussion/ Diagnosis
Aug 06, 2025	1	40 y, m	2 y	Unknown Asphyxia +	Aura Dejavu FIAS FBTCS	2 seizure-FIAS+FBTCS F8-T4	Right mesial temporal sclerosis	Surgery candidate Right ATL
	2	30 y, m	17 y	Unknown	Aura FIAS	6 seizure-FIAS F8-T4	Right mesial temporal sclerosis	Surgery candidate Right ATL
	3	25 y, male	14 y	Unknown	Aura Dejavu FIAS FBTCS	2 seizure FIAS	- Volume loss in the right hippocampus with loss of internal layer differentiation: mesial temporal sclerosis with hippocampal atrophy - Cystic encephalomalacia with gliotic sclerosis in the right temporal lobe (fusiform gyrus).	Ictal EEG is not clear Follow-up
	4	26 y, male	20 y	Unknown	Aura FIAS FBTCS	2 seizure FIAS	Mesial temporal sclerosis on left side	Follow up Frontal lobe epilepsy
	5	9 y, boy	9 y	asphyxia + febrile seizure+	Aura FIAS FBTCS	7 seizures Right frontal	Post-resection cavity in the left temporal lobe (amygdala, most of hyppocampus, anterior pole are removed)	Follow-up Frontal lobe epilepsy
Nov 19, 2025	6	22 y, f	17 y	Febrile seizure	FAS FIAS FBTCS	2 seizure-FIAS F8-T4	Bilateral smaller hippocampus with T2/FLAIR hypertensity (more on the right side) DDx bilateral mesial temporal sclerosis	PET Intracranial EEG
	7	30 y, f	7 y	4 months ICU	FIAS FBTCS	1 seizure-FIAS F8-T4	Bilateral mild hippocamp sclerosis	Need more VEEG
	8	49 y, m	39 y	Until 3 y had GTC	FIAS	3 seizure-FIAS F7-T3	Bilateral hippocampal atrophy, severe	Follow-up
	9	34 y, f	14 y	Febrile seizure	Aura FIAS FBTCS	2 seizure-FIAS+FBTCS F8-T4	Right mesial temporal sclerosis (hippocampal atrophy)	Surgery candidate Right ATL

	10	38 y, f	25 y	Unknown	Aura FIAS FBTCS	2 seizure - FIAS F7-T3	Left hippocampal atrophy	Surgery candidate Left ATL
Nov 25, 2025	11	33 y, m	18 y	Unknown	Aura FIAS FBTCS	1 seizure-FIAS F7-T3	Reduced volume with increased FLAIR signal intensity in the left hippocampus, suggest MTS	Surgery candidate DS: Left ATL
	12	15 y, f	5 month	Unknown	Head drop every day	Head drop	Normal	Surgery candidate CC Discuss parents
	13	30 y, f	7 y	4 months ICU	FIAS FBTCS	7 seizure-FIAS F8-T4	Bilateral mild hippocamp sclerosis	Surgery candidate Right ATL

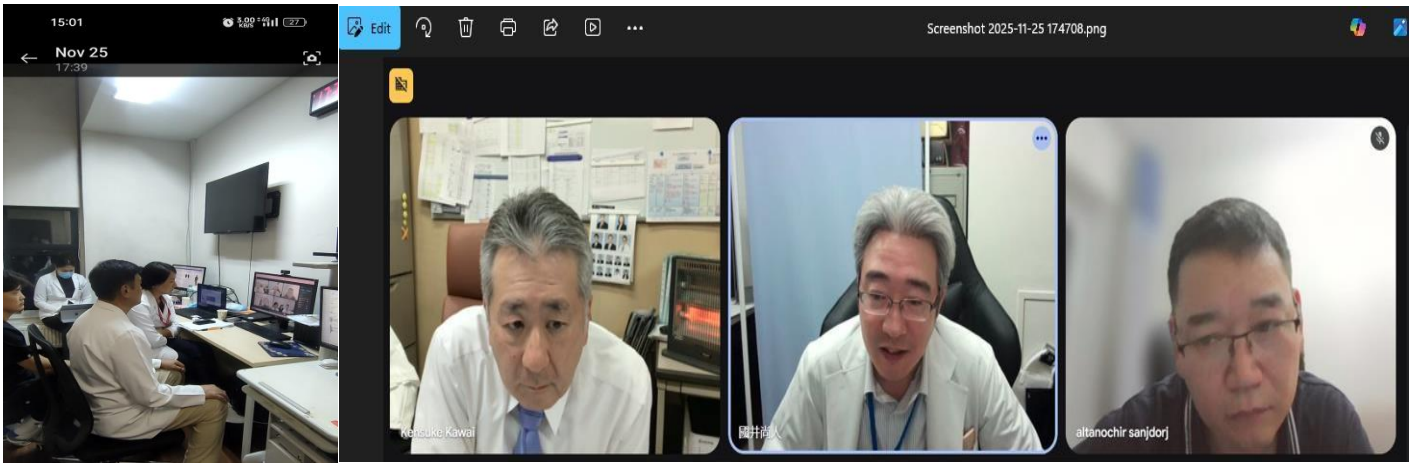


Figure 1. Online case discussion

Phase 2: ILAE Round 2, December 7–10, 2025

ILAE Round 1 took place from December 7-10, 2025, at the Epilepsy Center, Mongolia-Japan Hospital, Mongolian National University of Medical Sciences in Ulaanbaatar, Mongolia, as part of the ILAE Local Mentorship Program.

During this visit, a total of **four** epilepsy surgeries were successfully performed—two per day from December 8 to December 9—with **Prof.Naoto Kunii**.

Prof. Hideaki Shiraishi conducted a range of academic and clinical activities to strengthen local capacity, including targeted training sessions for neurologists specializing in epilepsy during this period. He also provided patient consultations and informational sessions, offering comprehensive guidance to individuals with drug-resistant epilepsy and their families on surgical treatment options and the pre-surgical evaluation process.

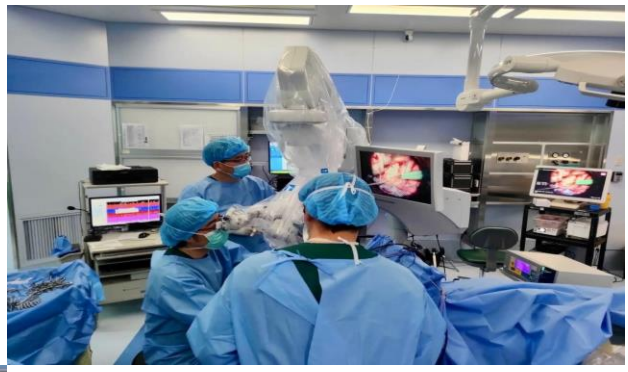
Figure 2. Prof. Hideaki Shiraishi engaging in case discussions with neurologists and providing recommendations for patients with epilepsy and their families.

Phase 3: PATIENT PREPARATION FOR SURGERY

After the visit, clinical case discussions continued and became increasingly productive. Through these detailed case reviews and a thorough assessment of the surgical team's capabilities, four patients were carefully selected to undergo surgery.

Table 2. List of patients who underwent surgery (December 08-09, 2025)

№	Age/Sex	Onset	Cause	Seizure type	EEG findings	MRI findings	Surgery
2	30 y, m	17 y	Unknown	Aura FIAS	6 seizure-FIAS F8-T4	Right mesial temporal sclerosis	Right anterior temporal lobectomy
9	34 y, f	14 y	Febrie seizure	Aura FIAS FBTCS	2 seizure-FIAS+FBTCS F8-T4	Right mesial temporal sclerosis (hippocampal atrophy)	Right anterior temporal lobectomy
11	33 y, m	18 y	Unknown	Aura FIAS FBTCS	1 seizure-FIAS F7-T3	Reduced volume with increased FLAIR signal intensity in the left hippocampus, suggest MTS	Left anterior temporal lobectomy
13	30 y, f	7 y	4 months ICU	FIAS FBTCS	7 seizure-FIAS F8-T4	Bilateral mild hippocamp sclerosis	Right anterior temporal lobectomy



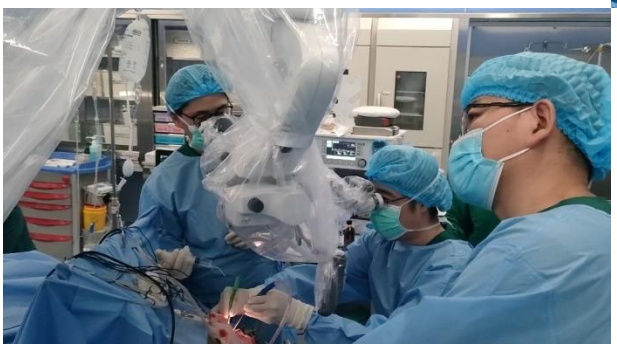


Figure 3. Prof.Naoto Kunii mentoring the surgical team during the epilepsy surgery

We would like to express our sincere gratitude to the Japanese professors for visiting our center of Mongolia-Japan Hospital of MNUMS.

Figure 4. Teams, during the winter of December 2025, Ulaanbaatar, Mongolia

ACKNOWLEDGMENTS

The visit of Prof. Kensuke Kawai and his esteemed colleagues marked a milestone in the advancement of epilepsy surgery care in Mongolia. Their mentorship was not only informative but also transformative—demonstrating how comprehensive presurgical evaluations can be effectively carried out using our existing local resources.

Throughout their visit, they introduced a range of surgical techniques, while consistently emphasizing the importance of integrating clinical, electrophysiological, and neuroimaging data for precise diagnosis and optimal surgical outcomes. Their hands-on guidance empowered our team to move closer towards establishing a sustainable epilepsy surgery program.

We are deeply grateful to Prof. Kensuke Kawai, Prof. Naoto Kunii, and Prof. Hideaki Shiraishi for their outstanding support, expertise, and dedication. Their visit not only enhanced our professional capacity but also inspired a stronger vision for the future of epilepsy care in Mongolia. Their contributions will have a lasting impact, and they will always be remembered as true mentors and respected representatives of the International League Against Epilepsy (ILAE).

The Mongolian Epilepsy Society, as a member of ILAE, has successfully implemented the ILAE Mentoring Program in Mongolia and would like to express our deep gratitude to all ILAE members and the management team, as well as the ILAE epilepsy surgery task force.

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