

ISP-26-5

The 75th Annual Congress of
the Japan Society of Obstetrics and Gynecology
Tokyo 12 May 2023

Clinical practice and short - term efficacy of
microwave endometrial ablation
for treating menorrhagia in an outpatient clinic

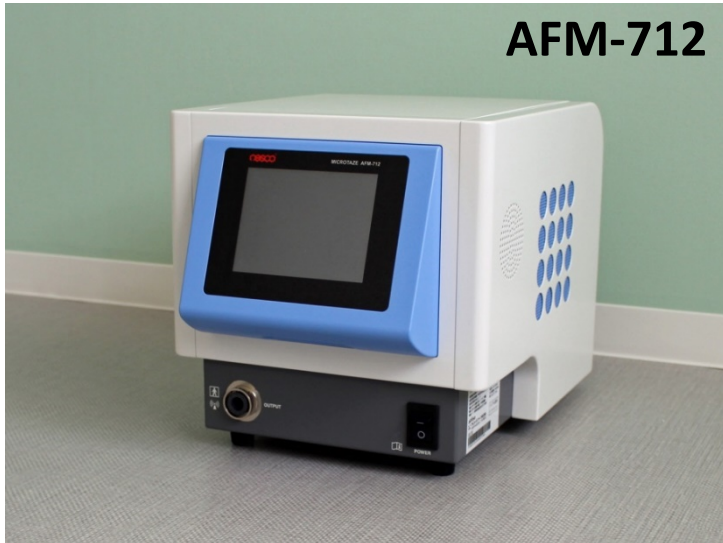


Naoki Matsumoto

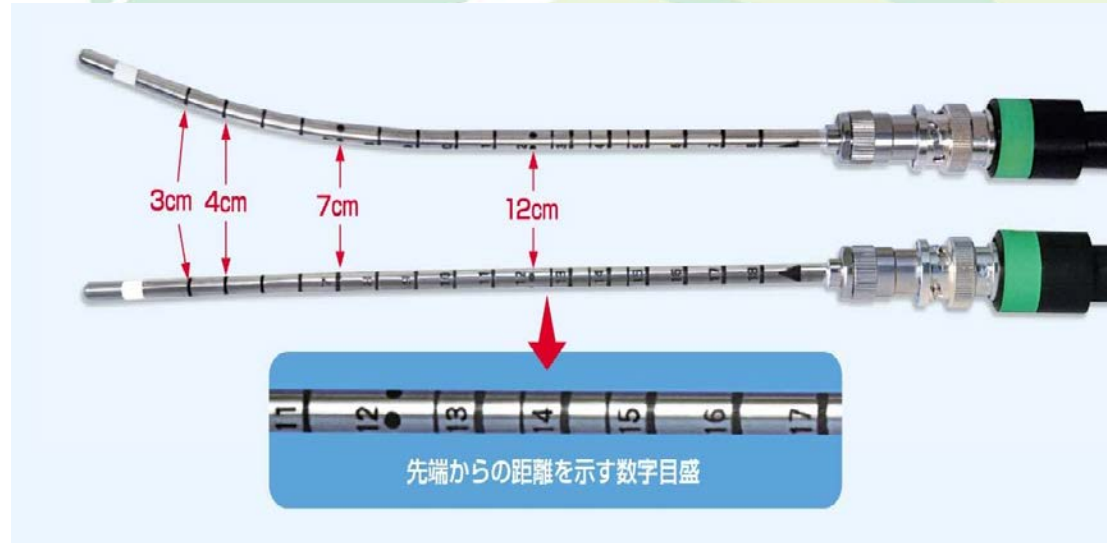
Matsumoto Women's Health Clinic

Background

MEA, 2.45-GHz microwave endometrial ablation with hysteroscopy



Microtaze[®] (Alfresa Pharma, Japan)



Sounding Applicator[®] (intrauterine ablation device)



Flexible Hysteroscope (Pentax Medical, Japan)



Method

MEA procedures and patients

Indication	Organic/functional menorrhagia No need of sparing fertility
MEA	Performed as a 1-day surgery
Anesthesia	Thiamylal sedation and paracervical block.
Study period	2016–2021 (6 years)
Patients	31 patients treated with MEA

(A patient who was diagnosed with atypical polypoid adenomyoma was excluded from this study)



Method

Study design

Data collection

Patients' medical records

Pre-/postoperative VAS questionnaire for each symptom

MEA outcome

Effective

Evaluated in **6 and 12 months** after treatment.

Patients with **reduced menorrhagia and no anemia** without hysterectomy

MEA Failure

Hysterectomy or other surgical therapy after MEA

The control group for comparison

82 patients with menorrhagia who were treated with **LNGIUS** insertion during the same period.

VAS: Visualized analog scale scoring 0–100

LNGIUS: Levonorgestrel-containing intrauterine system



Results

Characteristics
of **31 MEA** and
82 LNGIUS
cases for the
treatment of
menorrhagia

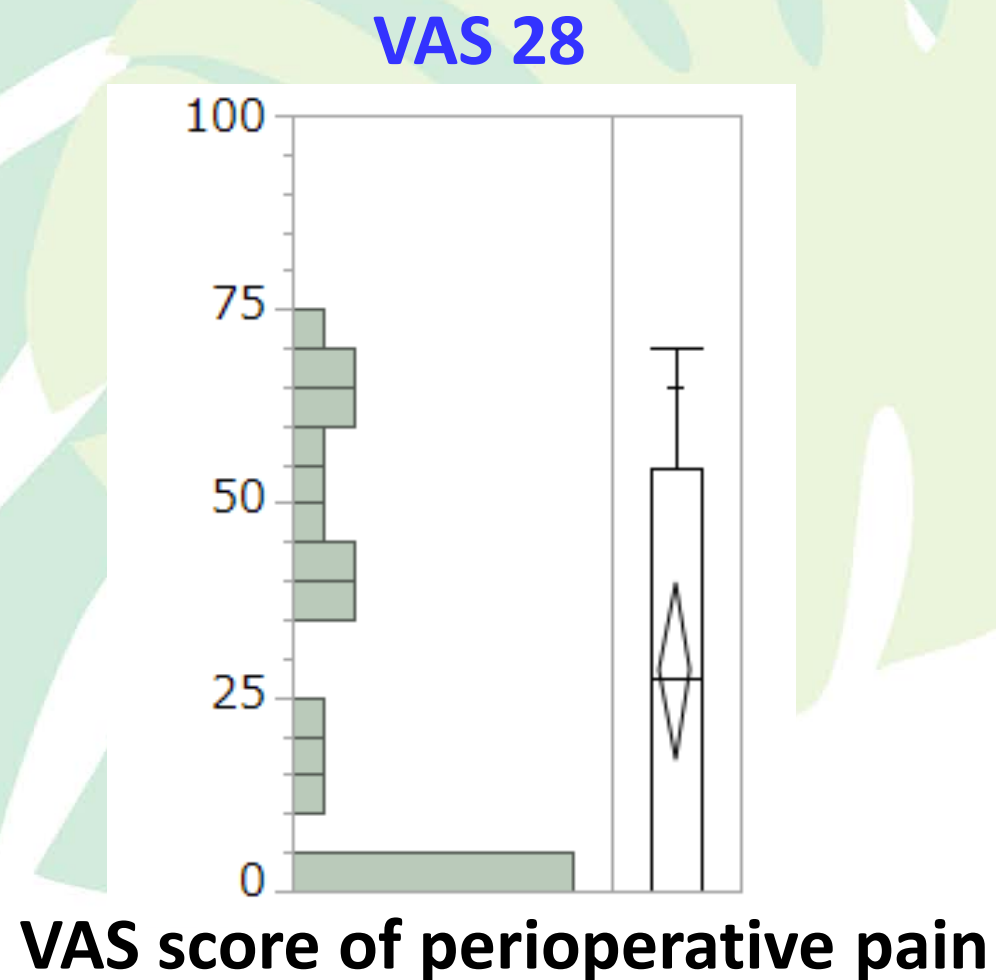
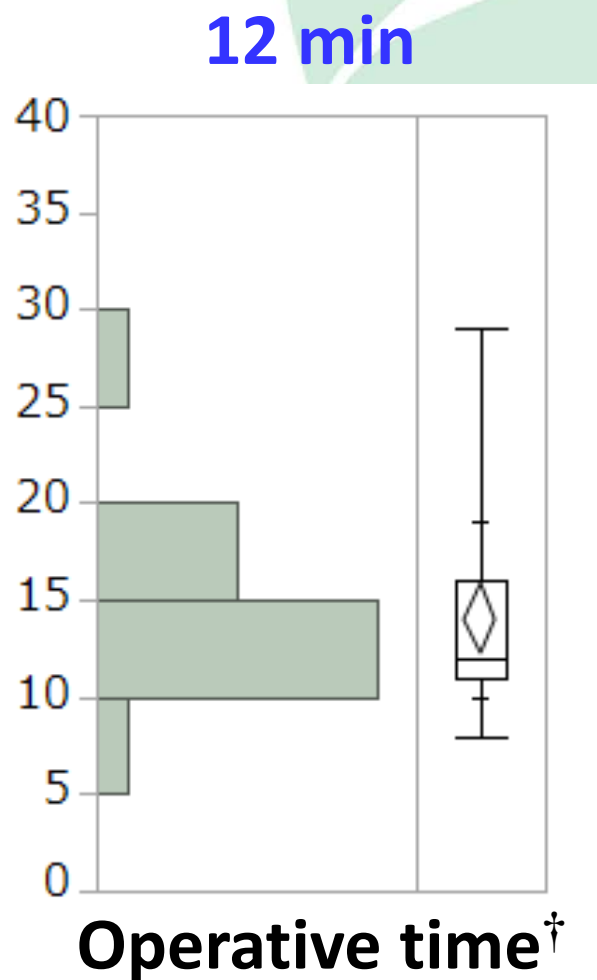
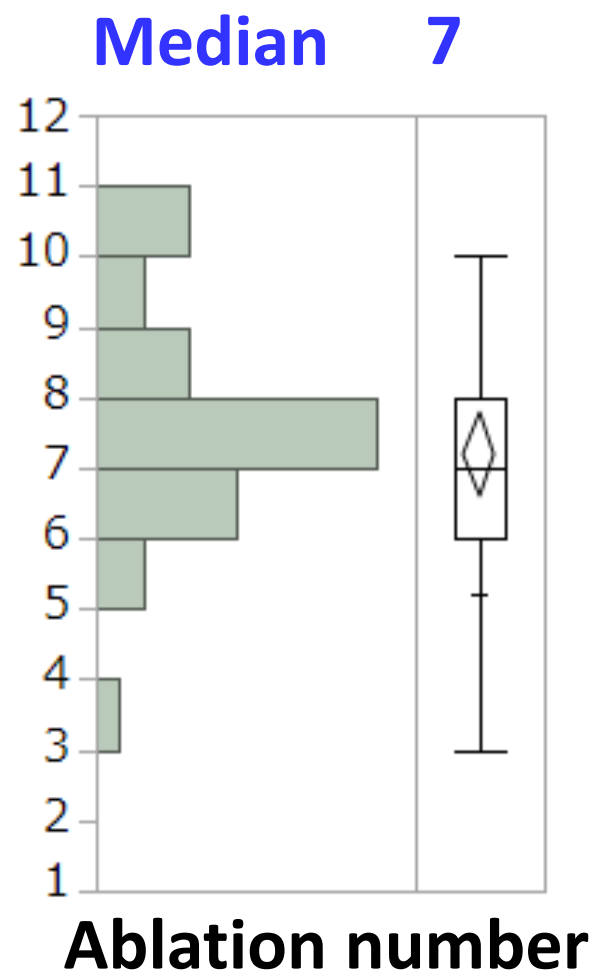
*Significantly
different

	MEA31	LNGIUS82	
Factors	Median (range) n	Median (range) n	
Age (years)	46 (37–53)	41 (24–53)	*
Nulliparity	0 (0%)	4 (5%)	
Pretreatment anemia	24 (77%)	34 (41%)	*
Pretreatment hemoglobin (g/dL)	10.6 (8.0–14.3)	12.4 (7.9–14.6)	*
Organic diagnosis causing menorrhagia			
Uterine fibroids	25 (81%)	23 (28%)	*
Adenomyosis	13 (42%)	44 (54%)	
Fuctional menorrhagia	0 (0%)	18 (22%)	*
Pretreatment pseudomenopausal therapy	9 (29%)	4 (5%)	*
Pretreatment oral E/P medication	3 (10%)	11 (13%)	



Results

MEA procedures summary

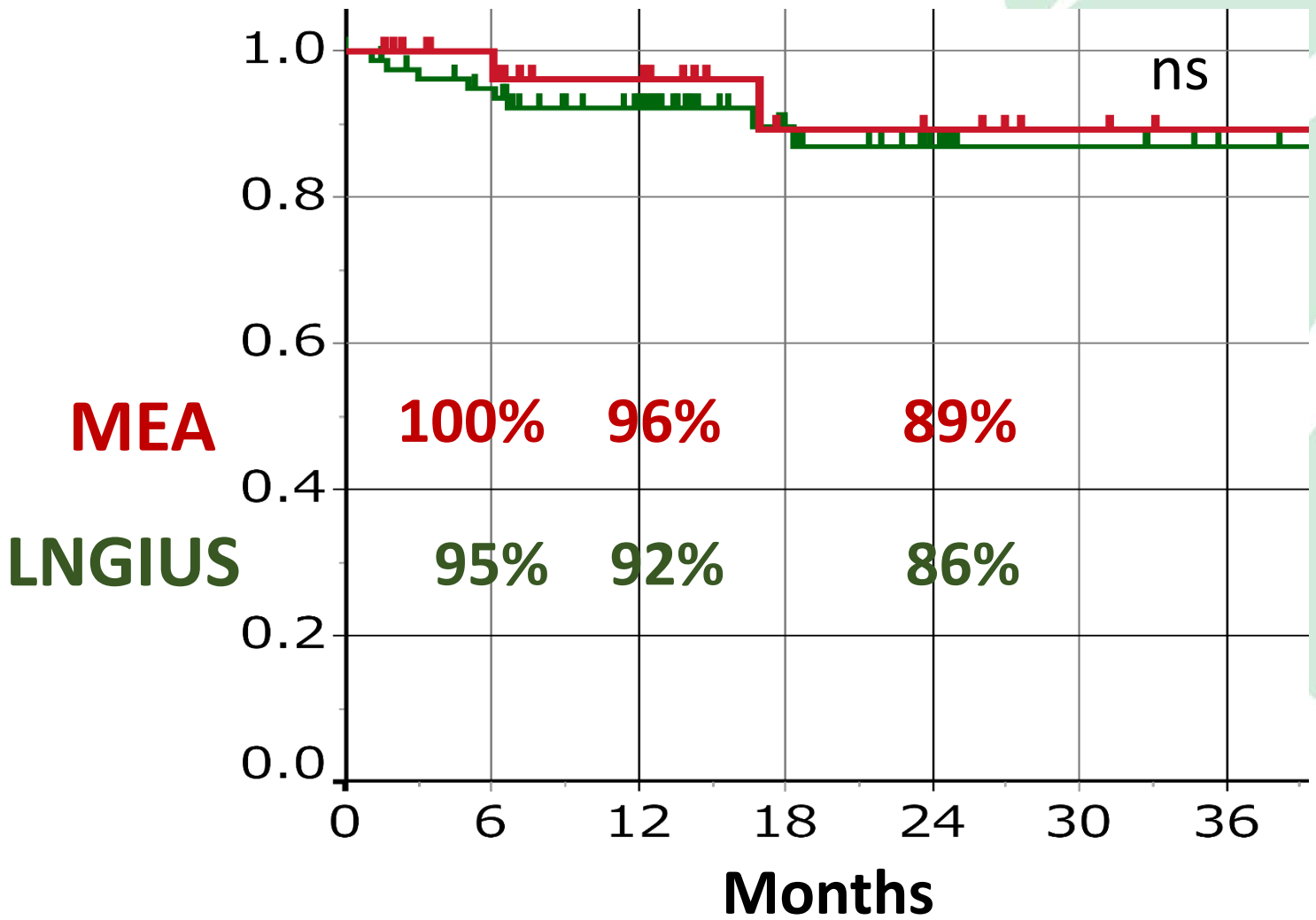


†From starting the first ablation to ascertaining sufficient ablation by hysteroscopy



Results

Survival graphs without treatment failure†



†Treatment failure:

Hysterectomy in the **MEA** group
(**2 cases** in 24 months)

Device expulsion or discontinuation
in the **LNGIUS** group
(**8 cases** in 24 months)

ns: not significant



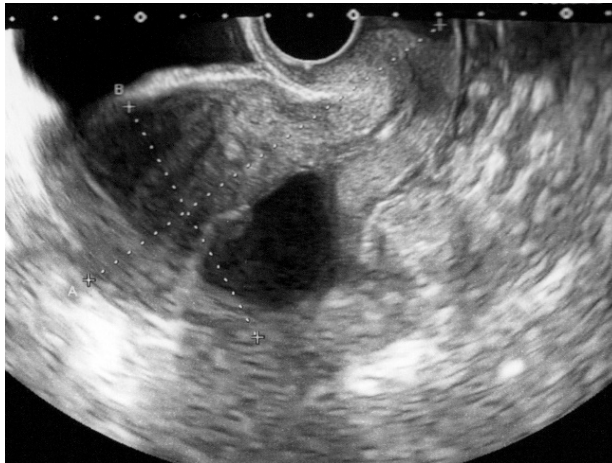
Results

Hysterectomy after MEA

Case 1

Age 41 y, Para 1, Schizophrenia
Diagnosis **Adenomyosis**, Menorrhagia,
Dysmenorrhea, Anemia

Exam/lab findings Hemoglobin 9.2 g/dL
Uterus 10 × 6 cm, **LNGIUS-ineffective**



Number of ablation 6
Period at hysterectomy **6 months** after MEA
Reason of hysterectomy **Severe dysmenorrhea**

Case 2

47 y, Para 1, Smoker
Adenomyosis, Menorrhagia, Anemia,
History of **LNGIUS expulsion**

Hemoglobin 11.3 g/dL
Uterus 12 × 8 cm



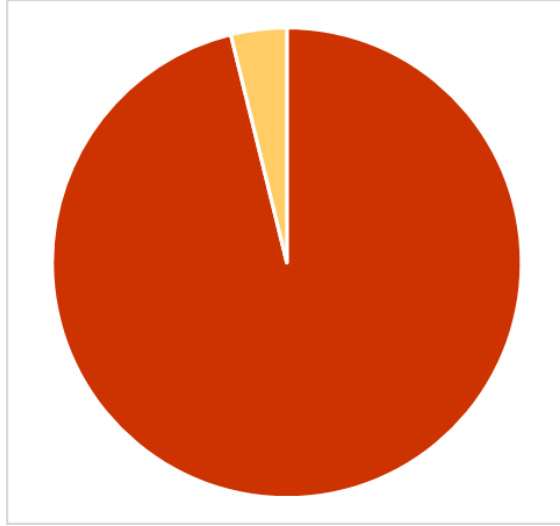
10
17 months after MEA
Recurrence of menorrhagia



Results

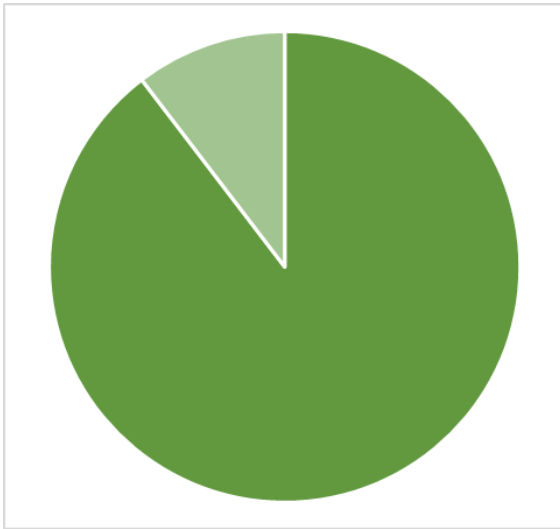
Efficacy outcome

MEA

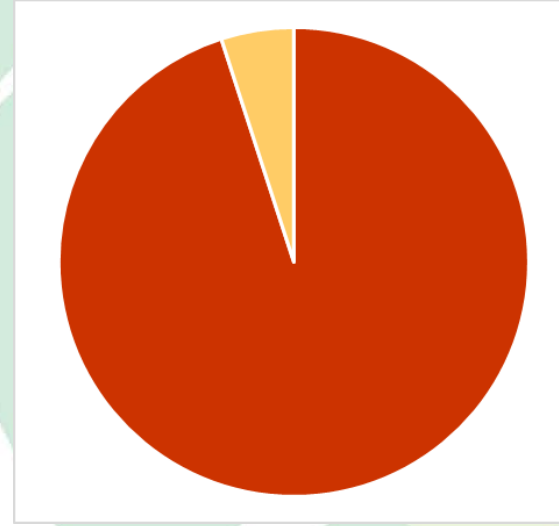


ns

LNGIUS

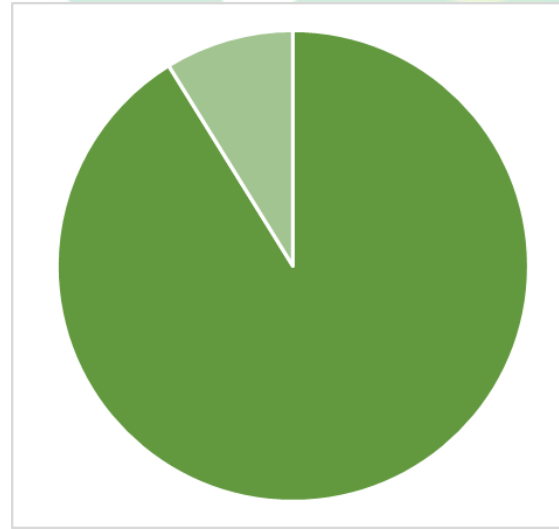


in 6 months



ns

The **effective** group:
patients with **reduced**
menorrhagia and **no**
anemia



in 12 months

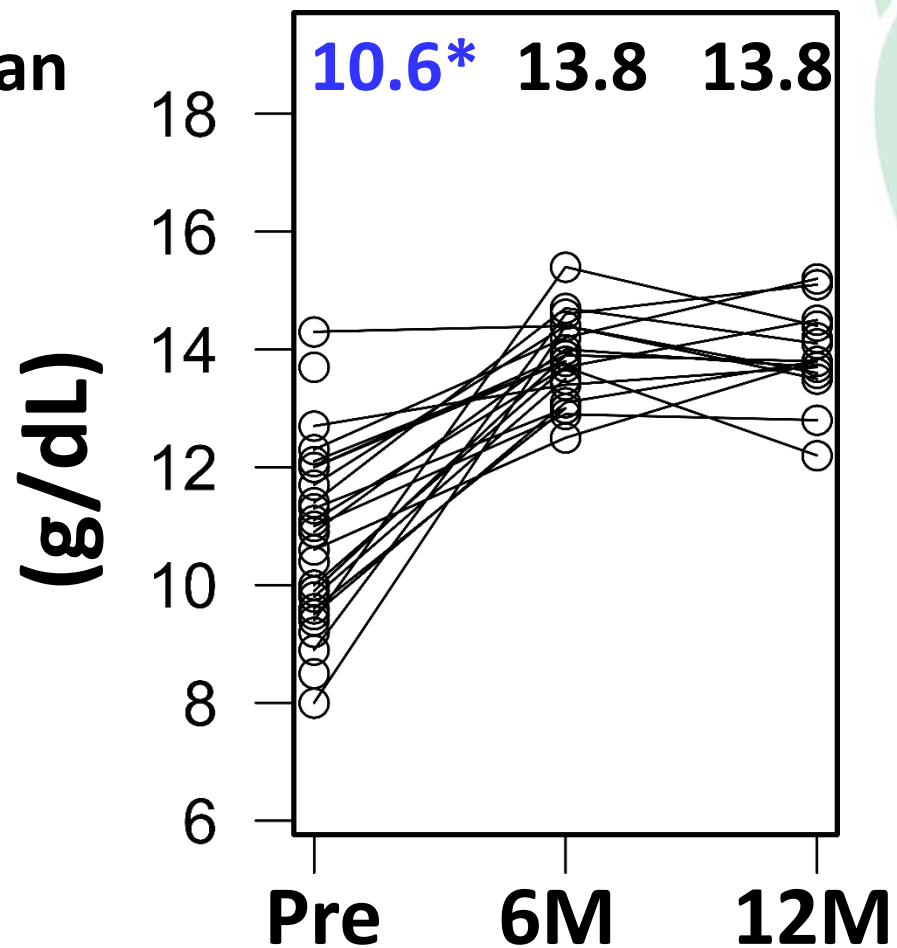


Results

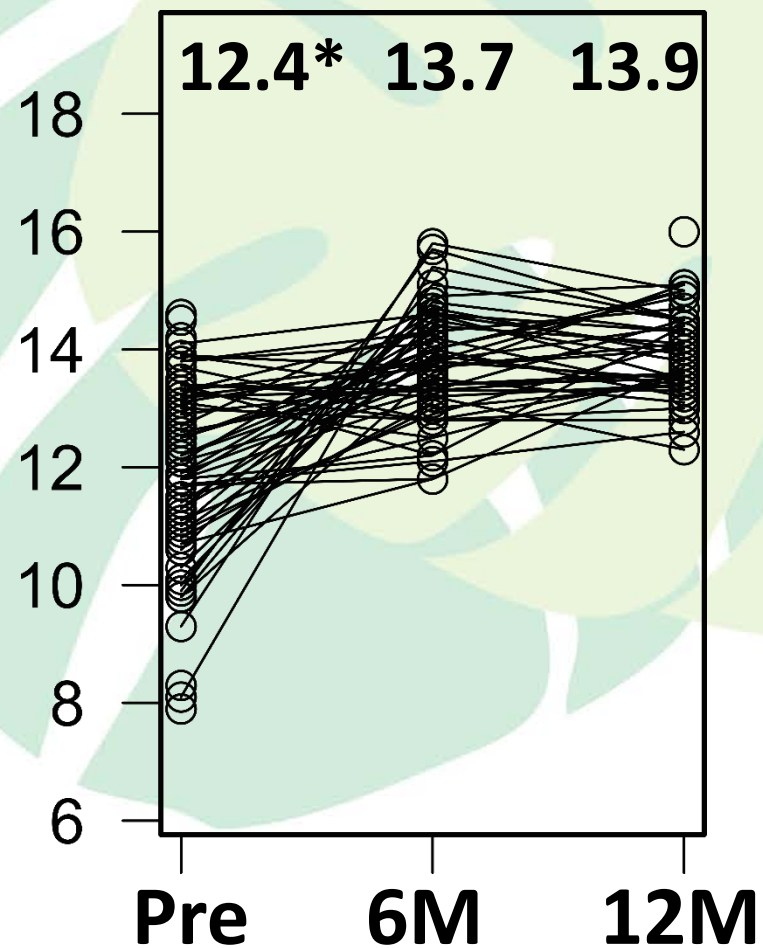
Changes in the **Hemoglobin concentration**

MEA

median



LNGIUS

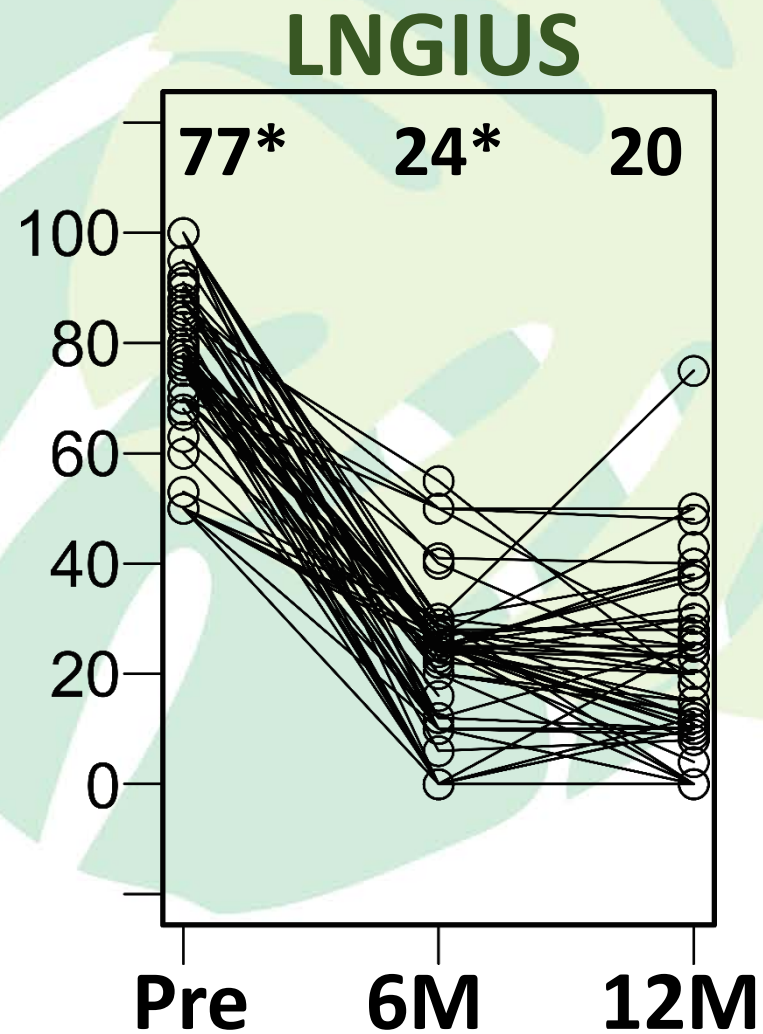
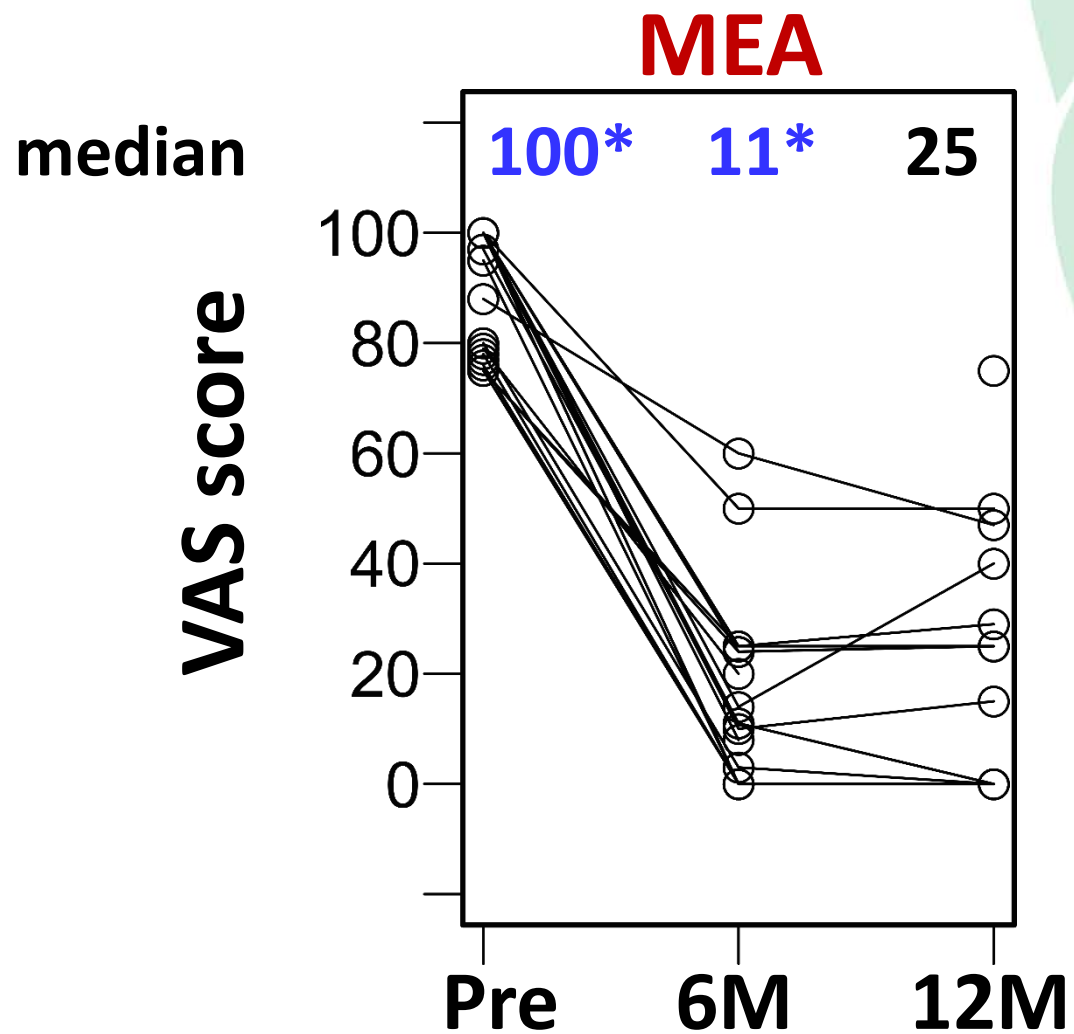


*significantly different from another group



Results

Changes in the VAS scores: **Menstrual bleeding**



*significantly different from another group



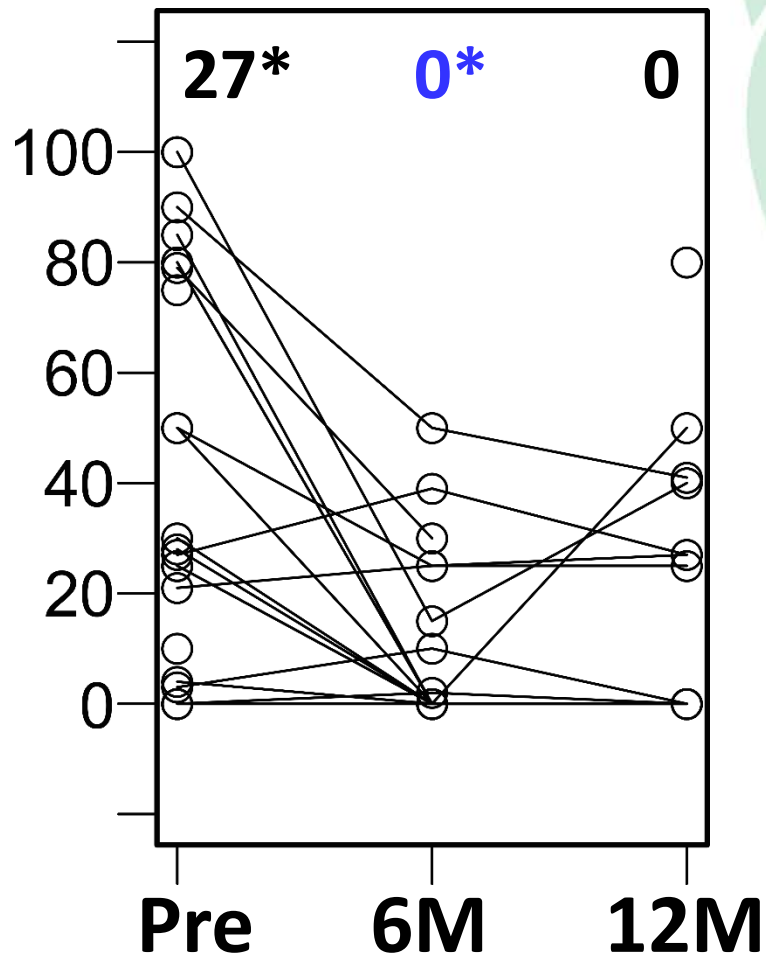
Results

Changes in the VAS scores: **Menstrual pain**

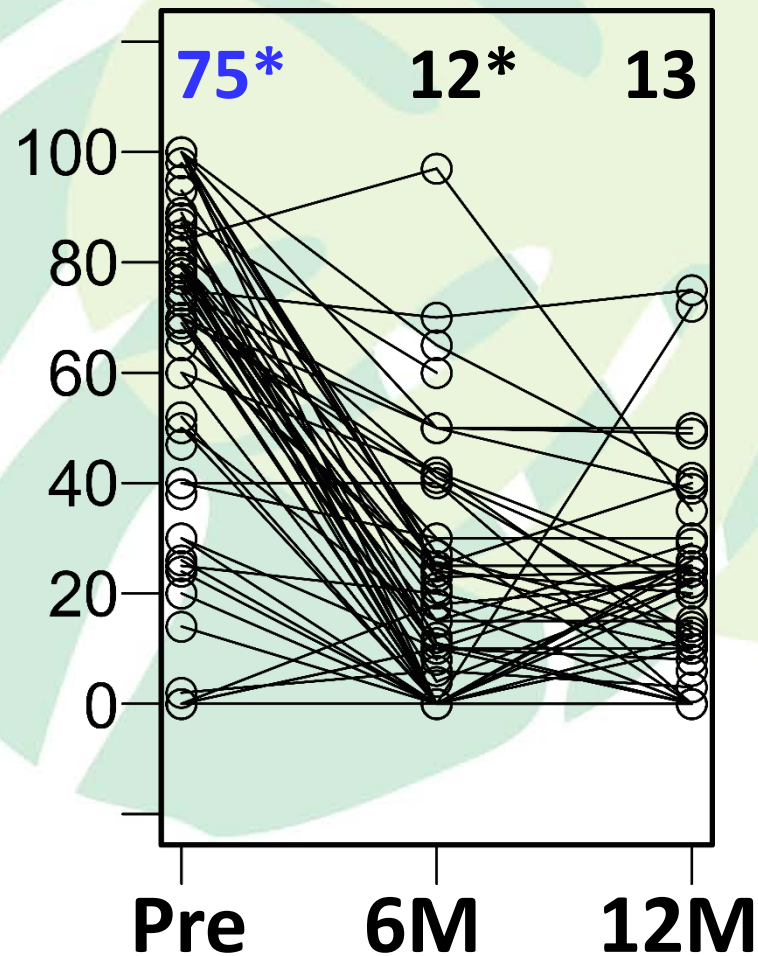
MEA

median

VAS score



LNGIUS



*significantly different from another group



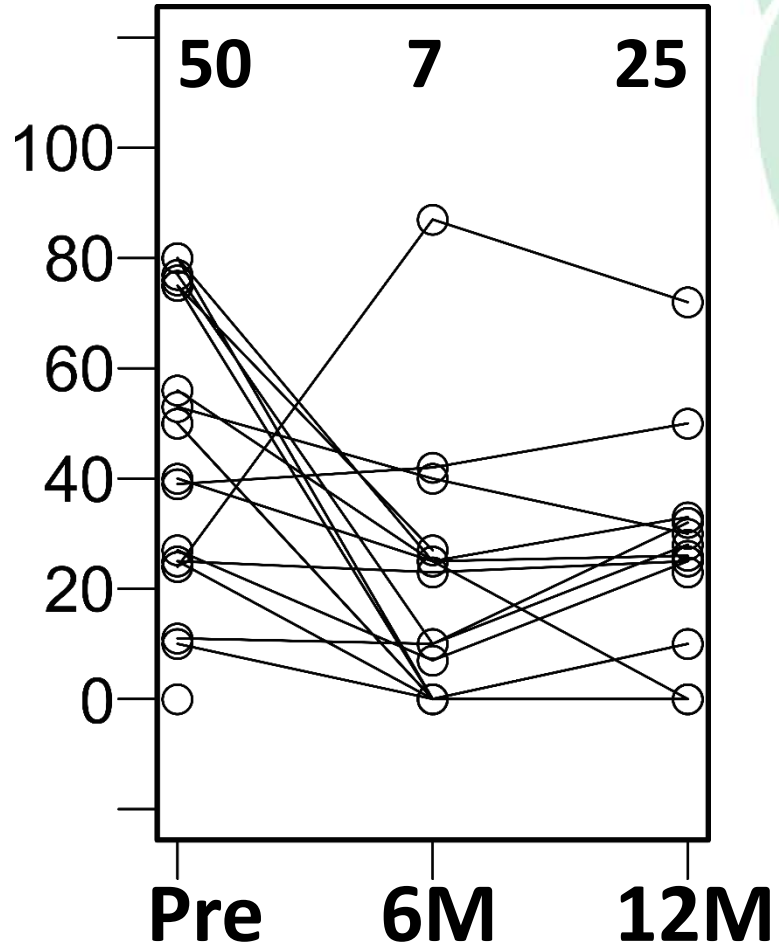
Results

Changes in the VAS scores: **Fatigue**

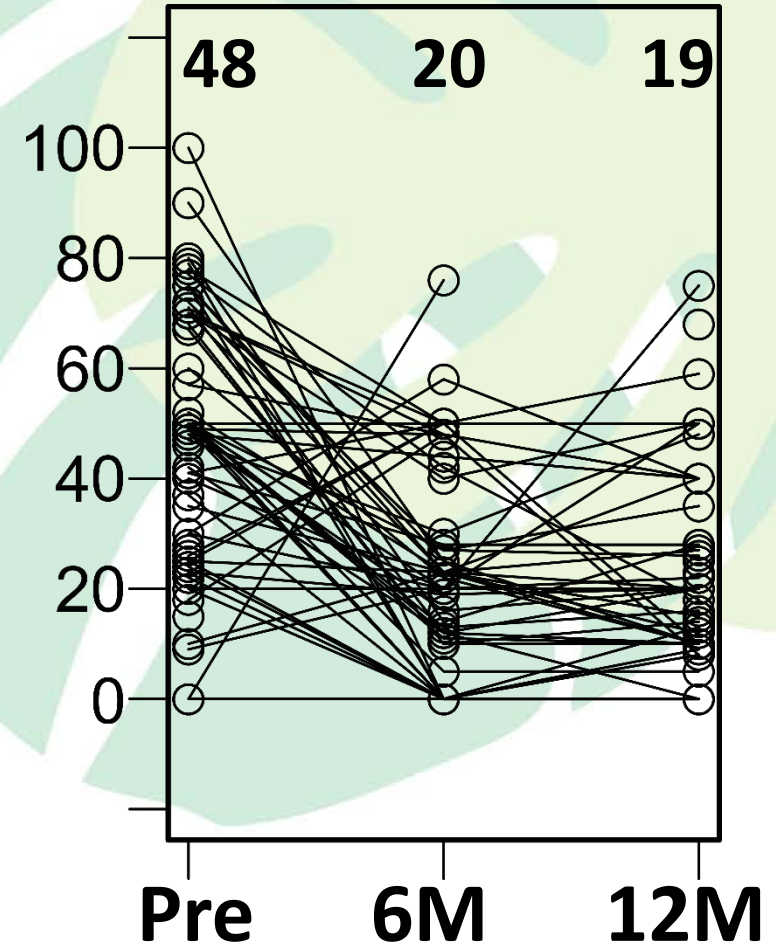
MEA

median

VAS score



LNGIUS



*significantly different from another group



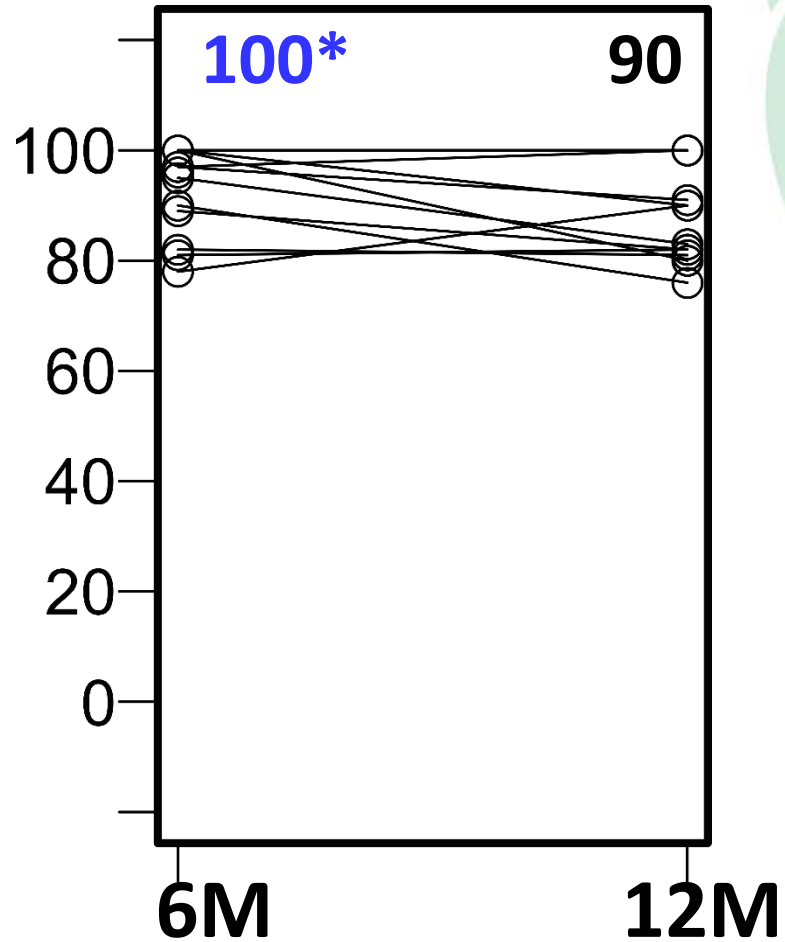
Results

Changes in the VAS scores: **Satisfaction**

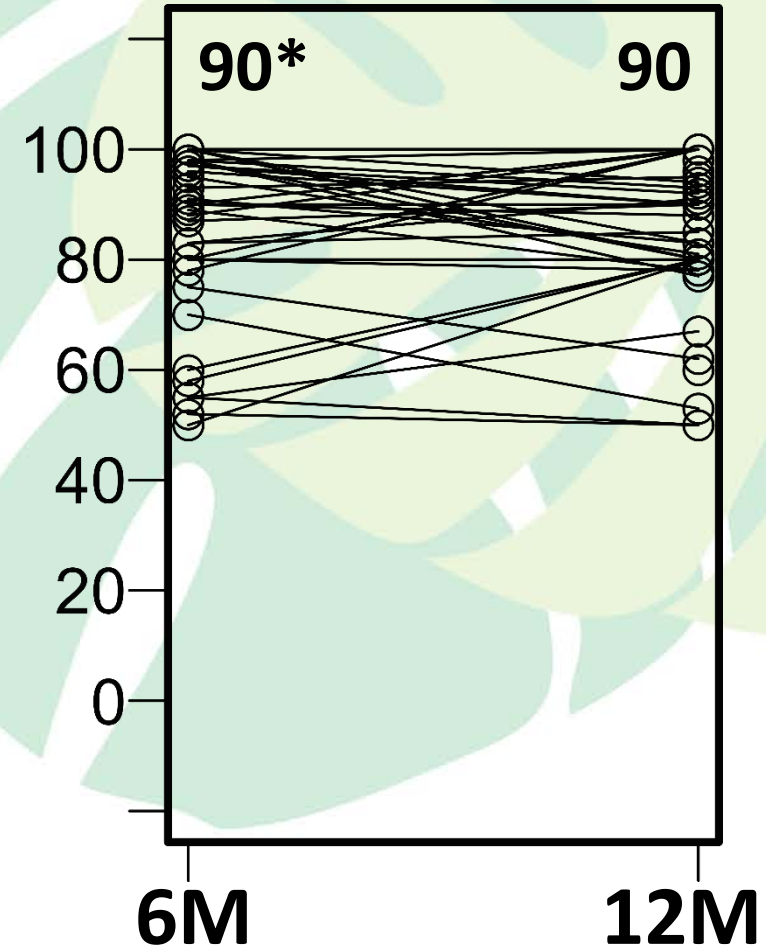
MEA

median

VAS score



LNGIUS



*significantly different from another group



Results

Adverse events after MEA

Grade	Adverse events	Number (%)
Mild	Endometritis	2 (6%)
Moderate	Hematometra	1 (3%)

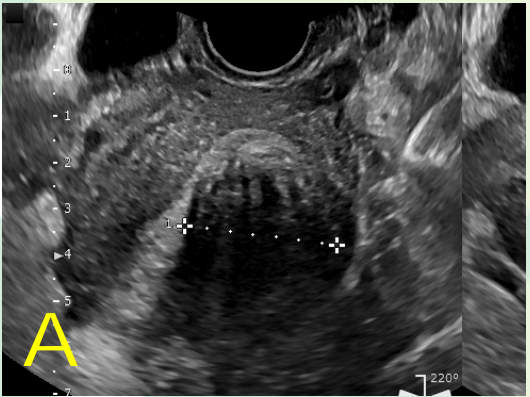
(excluding slight events)

Post-MEA Hematometra (Fig. B)

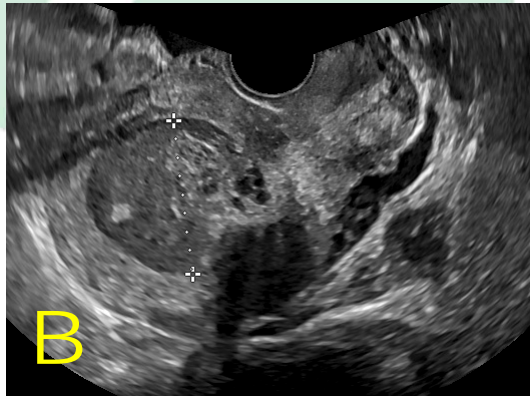
Age	37 y, Para 3
Diagnosis	Multiple fibroids, Menorrhagia, Dysmenorrhea, Anemia
Pre-MEA exam/lab finding	Hemoglobin 10 g/dL Uterus 10 × 6 cm Submucosal fibroid 3 cm (Fig A)
Number of ablation	10
Period at the adverse event	18 months
Treatment	Drainage, successful

Figure

Ultrasound images of the right case



A. Pre-MEA image. Submucosal fibroid 3 cm



B. Hematometra 4 cm



Discussion

Summary

- ✓ **MEA** was **safely performed** in the outpatient clinic.
- ✓ **Fibroma** and anemia were **more frequently observed in the MEA group** than in the LNGIUS group.
- ✓ However, **equally effectively** treated in the **MEA** group at **6 months (96% vs. 90%)** and at **12 months (95% vs. 91%)**.
- ✓ **MEA** had **high short-term efficacy** in alleviating menorrhagia symptoms.
- ✓ Patients with uterine fibroids who seem unsuitable for the LNGIUS treatment can be treated with MEA.



Discussion

Short-term
MEA efficacy
reported on
the recent
literatures
in Japan

Year	Authors	n	Period of assessment for the effect (months after MEA)	Amelioration of menstrual bleeding volume	Postoperative amenorrhea	Amelioration of menstrual pain	Subsequent hysterectomy or other surgery
2012	Tsuda	25	3	96%	32%		
2012	Ishikawa	55	6–24	92%	31%	81%	2%
2014	Nakayama	76	6	95 %	34 %	VAS 42 → 13	
2014	Matsumoto	22	6	95%	53%	VAS 75 → 5	9%
2017	Ikebuchi	30	6	80% reduction	47%	VAS 73 → 9	0%
2018	Nakamoto	16	uncertain	88%	13%		6%
2019	Kakinuma	57	6	VAS 100 → 12	35%	VAS 100 → 16	0%
2019	Hirooka	127	12	93%			11%
2020	Himuro	49	12	85%		95%	12%
2023	This study	31	12	95%	25%	VAS 27 → 0	6%



Conclusion

**MEA performed as a 1-day surgery
is an effective therapeutic option
in outpatient clinics.**