Spontaneous intracranial hypotension. Experience in a headache center in Argentina

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Objectives

To analyze the clinical characteristics of patients with spontaneous intracranial hypotension (SIH) and evaluate proposed local algorithm approach.

Methods

Prospective study. Patients > 18 years old with clinical and/or MRI diagnosis of SIH, evaluated in our center from July 2022 to March 2025, were included. To identify the CSF leak, a complete spinal MRI was carried out. Patients with CSF leak on spinal MRI received a targeted epidural blood patch (TEBP), those without a visible leak underwent a 1st non-targeted epidural blood patch (NTEBP). In patients with persistent headache at 2 weeks, a CT myelography (CTm) was performed. If the leak was found we performed a TEBP, if not, a 2nd NTEBP was indicated. Fig 1. We analyzed sex, age, diagnostic delay, headache phenotype, related symptoms, imagining studies, treatment, outcomes at 1 and 6 months.

Results

We included 32 patients (53% women). 50 years old in average. Mean diagnostic delay 75 days. All patients experienced headache (orthostatic pattern in 81%). Other symptoms were: tinnitus 53%, nausea and vomit 50% Fig 2. Signs of intracranial hypotension on brain MRI were detected in 24 patients (75%).The most frequently findings: pachymeningeal enhancement (75%) and venous engorgement (31%) Fig 3. Spine MRI showed epidural collection in 9 patients, no CFS leaks were identified and 1st NTEBP was performed. In 23 patients (72%) no other treatment was needed after 1 month. After 6 months, 6 patients were headache free. 9 patients (18%) failed to respond to 1st NTEBP and underwent a CTm. In 4 of them the CFS leak was found and TEBP was performed. At 1 month 3 patients were asymptomatic. The remaining 5, underwent to a 2nd NTEBP. 3 were headache free at 1month. The other 2 had orthostatic headache at 1 month. 1 of them underwent a third NTEBP, being headache free after that.
Of the 24 patients who had SIH signs in brain MRI, 79% responded to 1st NTEBP. 5 patients (21%) did not respond and underwent CTm. 4 dural CSF leaks were found. Of the 8 patients without SIH signs in brain MRI, 50% responded to 1st NTEBP. The other 50% who underwent CTm, the leak was not found in any of them.

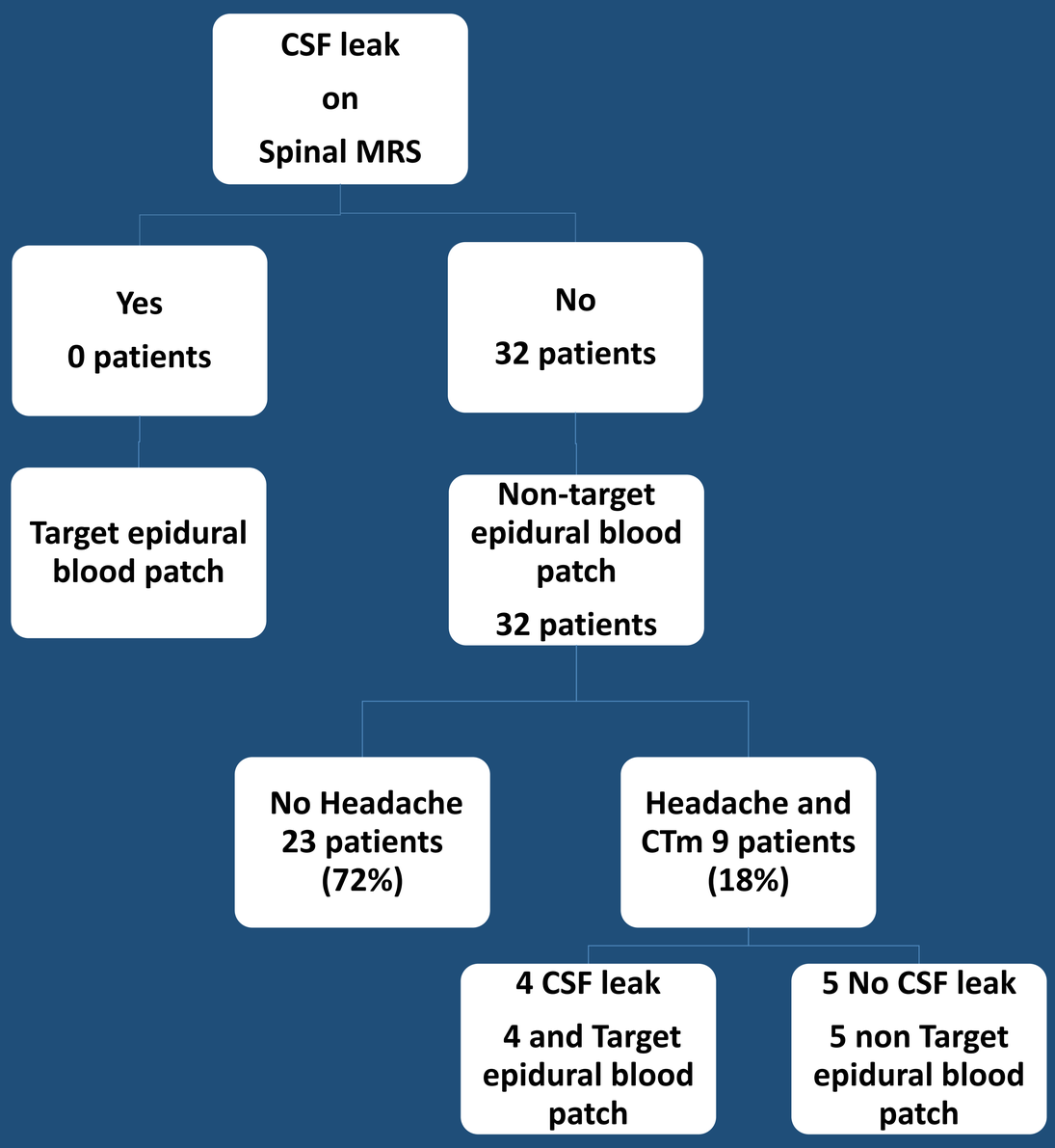

Fig 1

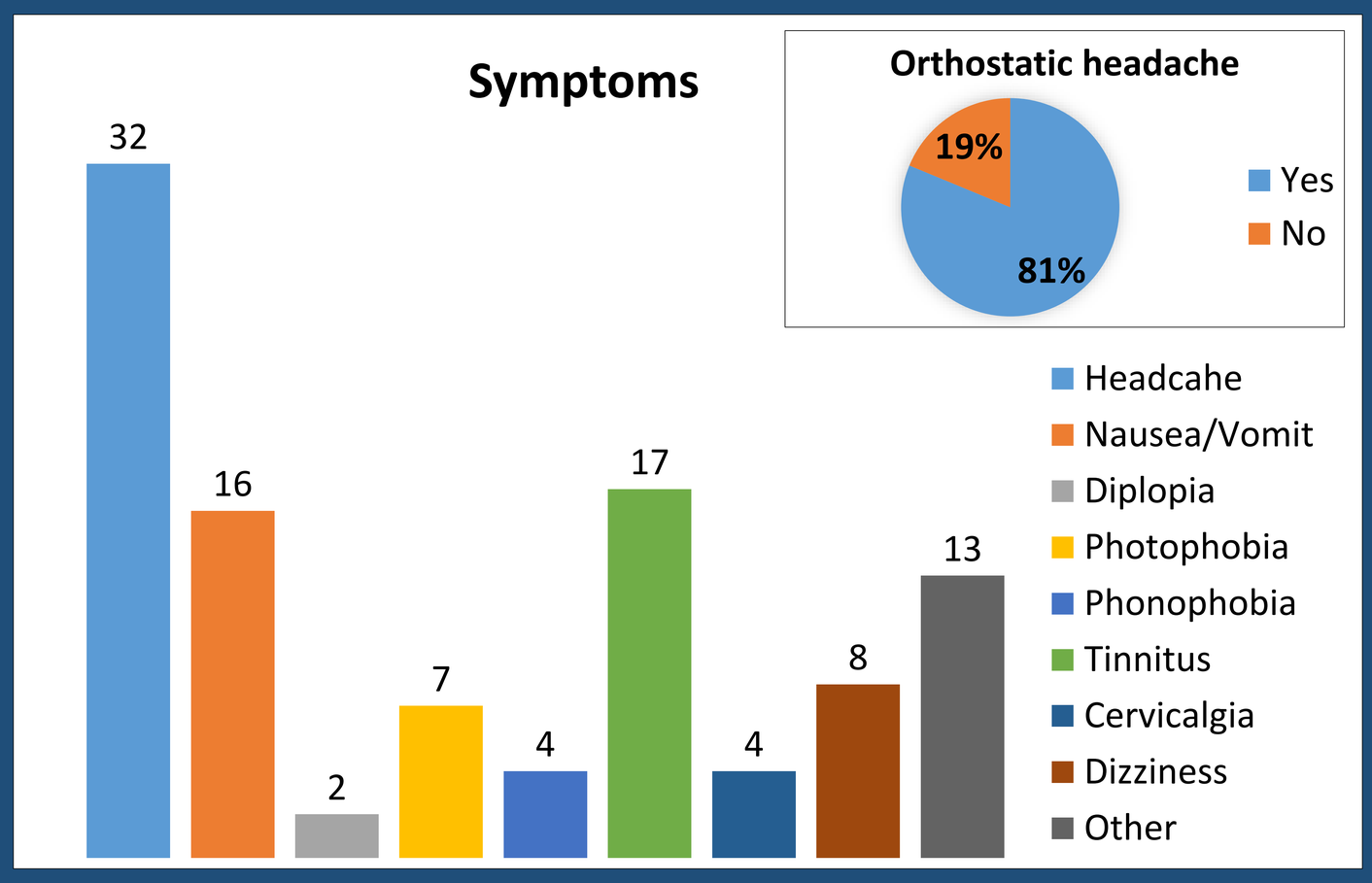

Fig 2

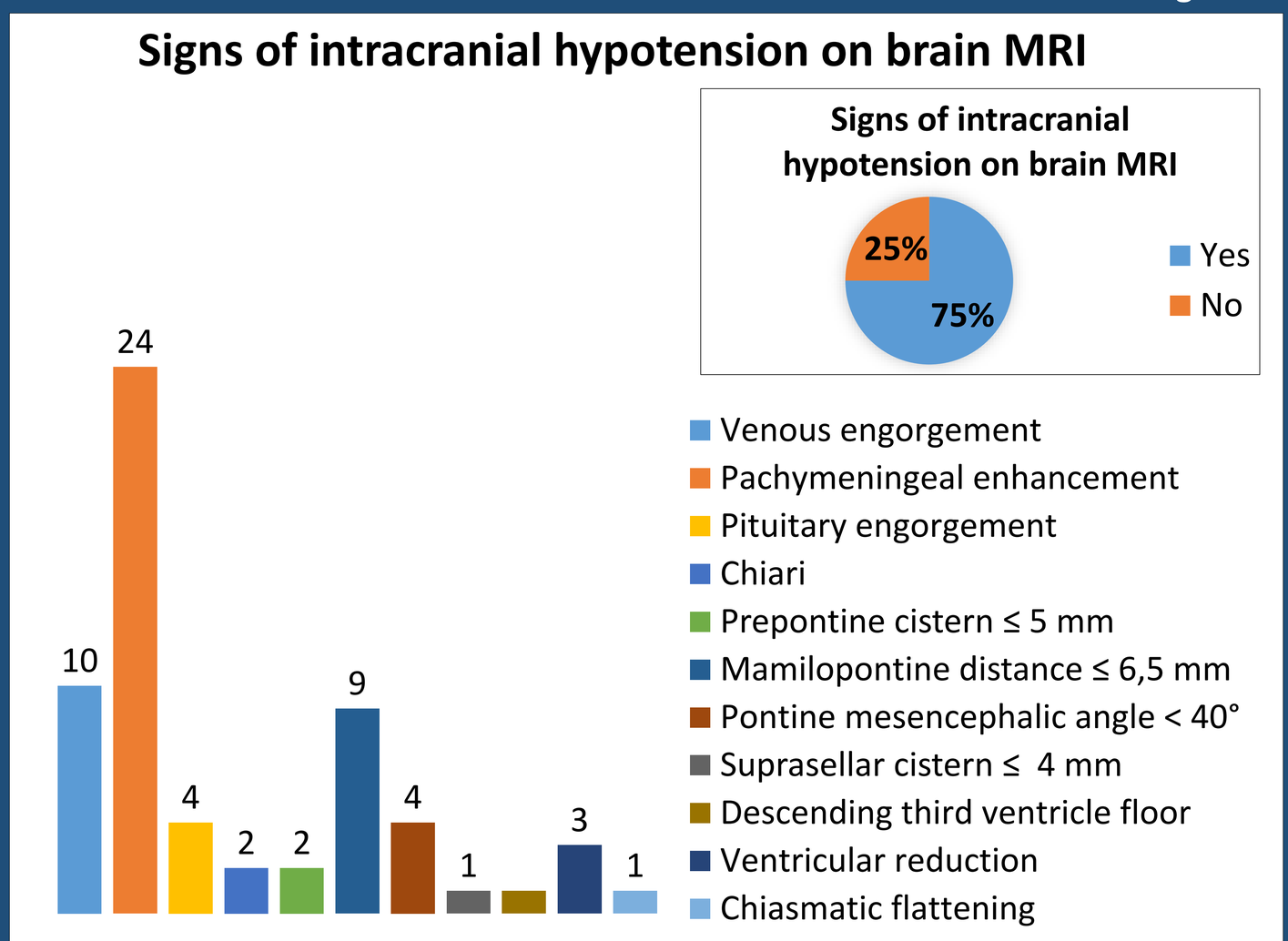

Fig 3

1 Non target epidural blood patch

	Headache free	Headache	No time	No follow up
1 m	23	0	0	0
6 m	6	0	9	8

1 Target epidural blood patch

	Headache free	Headache	No time	No follow up
1 m	3	1	0	0
6 m	2	0	1	1

Second Non target epidural blood patch

	Headache free	Headache	No time	No follow up
1 m	3	2	0	0
6 m	1	0	1	1

Conclusion

In these patients, orthostatic headache was the most common symptom. NTEBP was effective to treat most patients, especially among those with SIH signs in brain MRI . CTm was useful to localize the CFS leak in patients with signs in brain MRI, while spine MRI was not. SIH represents a diagnostic and therapeutic challenge requiring a multidisciplinary approach.

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