—Photogravure—

Idiopathic Intracranial Hypertension: The "Moth-eaten" Skull Base and Encephaloceles

Saiko Isshiki[1], Hiroyuki Tajima[2], Nozomu Wakayama[3] and Kohjiro Tateyama[4]

[1]Department of Radiology, Nippon Medical School Musashi Kosugi Hospital

[2]Center for Minimally Invasive Treatment, Nippon Medical School Musashi Kosugi Hospital

[3]Department of Otolaryngology, Nippon Medical School Musashi Kosugi Hospital

[4]Department of Neurosurgery, Nippon Medical School Musashi Kosugi Hospital

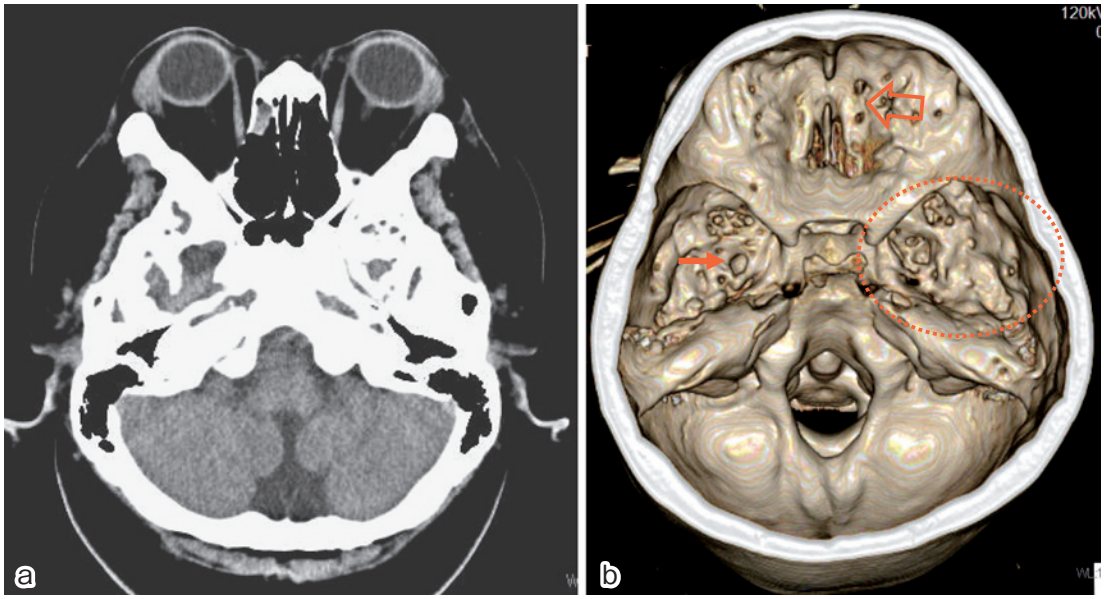

Fig. 1

Idiopathic intracranial hypertension (IIH) involves increased cerebrospinal fluid (CSF) pressure without identifiable structural abnormalities and was recently recognized as a primary form of pseudotumor cerebri syndrome[1]. It typically occurs in obese teenaged girls without other complications.

The patient was a young, obese woman who had had headaches for several years, but routine computed tomography of the head showed no marked abnormalities (**Fig. 1a**). Three-dimensional computed tomography with volume rendering revealed multiple pits on the skull base (**Fig. 1b**). This "moth-eaten" appearance indicated persistent IIH, which can be overlooked in axial, thick-sliced images. Eventually nasal discharge developed because of CSF leakage, and IIH causing cribriform plate encephaloceles was diagnosed.

Chronic IIH characteristically produces meningoencephaloceles of the weakened thin areas of the skull base (**Fig. 2**) and bulging of the meninges through orifices, such as the foramen ovale[2]. Other characteristics of IIH include a partially empty sella (**Fig. 2a**), flattening of the posterior globes (**Fig. 2b**), protrusion of the intraocular portion of the optic nerve, vertical tortuosity of the optic nerve, distension of the perioptic subarachnoid space, and enhancement of the prelaminar optic nerve[3]. Therapy consists of controlling intracranial pressure through weight loss, acetazolamide medication, and CSF diversion, and occasionally surgical intervention for CSF leakage[4].

Conflict of Interest: The authors declare no conflict of interest.

Correspondence to Hiroyuki Tajima, MD, PhD, Center for Minimally Invasive Treatment, Nippon Medical School Musashi Kosugi Hospital, 1–396 Kosugi-cho, Nakahara-ku, Kawasaki, Kanagawa 211–8533, Japan

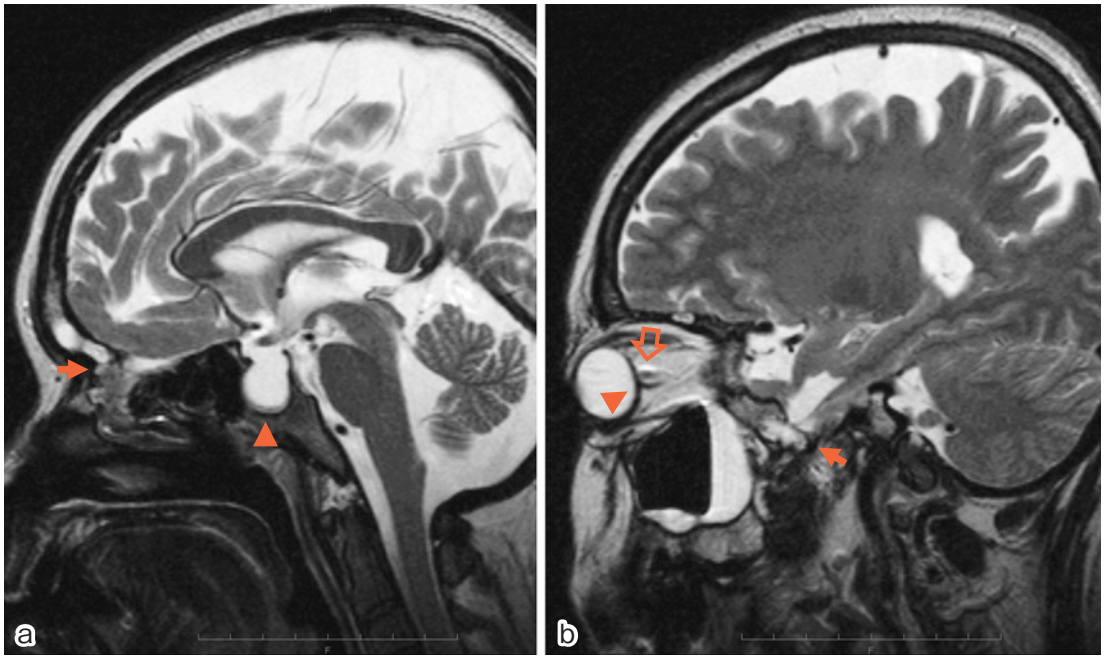

Fig. 2

Fig. 1 Routine computed tomography images of the head of the patient, a woman in her 30s with chronic headache. Routine scans revealed no marked abnormalities (a), but a volume-rendered image of the patient's skull base (b) revealed multiple thinning or defects located in the floor of the median fossa (**circle**) and the cribriform plate (**open arrow**). The foramen ovale is also widened (**arrow**). These locations are characteristically associated with naturally thin areas of the bone adjacent to the pneumatized spaces or osseous dehiscence. Note that these findings can be overlooked in routine axial computed tomography images without selecting adequate bone windows (a).

Fig. 2 Sagittal T2-weighted magnetic resonance images of the same patient. Meningoencephalocele formation in the cribriform plate (**arrow** in a) and the median fossa (**arrow** in b) are indicated. An empty sella (**arrowhead** in a), flattening of the posterior globes (**arrowhead** in b), and distension of the perioptic subarachnoid space (**open arrow** in b) are also seen.

References

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