

Current Status of the Headache Clinic of the Second Kawasaki Saiwai Clinic

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Objectives

Our headache clinic started about 4 years ago. While we investigated the current status of characteristics of our patients with headaches, we encountered many patients with arterial dissections. So, we decided to make a presentation in this conference.

Background

Kawasaki city is located near the center of the metropolitan area with a population of about 1.5million. The working rates between 20-54 years old are much higher in Kawasaki compared to Japan (Fig.1). Our clinic is the outpatient department of one of the major hospitals in Kawasaki city. It has two MRI apparatuses. Patients with severe headaches who need an ambulance go directly to our hospital, so the headaches of our patients are mild or moderate (Fig.2).

Method

All patients during their first visit with headaches filled out our headache questionnaire and had an interview and neurological examination. Most of them took MRI or CT scans as soon as possible, if their headaches appeared for the first time or their headaches were different from previous habitual headaches. The frequency of headache types was calculated for one hundred patients who visited our clinic between November 1 and December 4 in 2017.

Results

1. Sex ratio and Age Distribution

Sixty percent were female and 40% were male. The most frequent patient age group was forties, followed by fifties and sixties (Fig.3).

2. Frequency of Headache Types

Fifty nine percent of the patients suffered from vascular headaches, with tension type headache 29%, neuralgia 8%, and cluster headache 5% respectively.

Secondary headaches were only 2%(Fig.4).

3. Secondary Headaches

The most frequent cause among vascular accidents was arterial dissection. So far 22 patients with arterial dissection visited and 19 of them had vertebral dissections. Ages of onset were between 40 to 60 years old except for 2 cases. The most common type of their headache was vascular-like headache in 16 (72%), followed by tension-like headache and neuralgia-like with 3 cases each. Only one case showed cerebellar infarction. Eight cases (7 cases vascular and 1 case tension type headache) had a history of habitual headaches and 9 cases had a history of hypertension (Table 1).

Representative Case

46 years old male patient visited our clinic because of habitual headaches and preventive medicine for migraine was given. His MRI was normal (Fig5a). After the medication his headaches decreased. Six months later he experienced severe headaches and his MRI showed dissection of left vertebral artery (Fig5b). DSA was performed and showed obstruction of distal part of left vertebral artery (Fig5c, d). Luckily his headaches gradually decreased for a while and recanalization of left vertebral artery was confirmed (Fig5e).

Discussion

In terms of habitual headache, the most common headache type of our clinic was vascular headache as similar results were previously reported in other headache clinics.

In cases with vascular accidents among secondary headaches, we noticed many cases with arterial dissection. It is possible that patients with arterial dissection showing only headaches without other symptoms were found because of easy access of MRI. Further study might be required to know the frequency of exact arterial dissection among patients who present headaches alone. On the other hand, 31 percent of patients had migraines. This number is quite higher than the prevalence of migraines in Japan (8.4%). Patients with migraines might be sensitive to vascular injury.

Conclusion

Compared with the other headache clinics our results in terms of types of habitual headaches were quite similar, however, high frequency of arterial dissection was confirmed in our clinic. It might be influenced by easy accessibility of MRI scans.

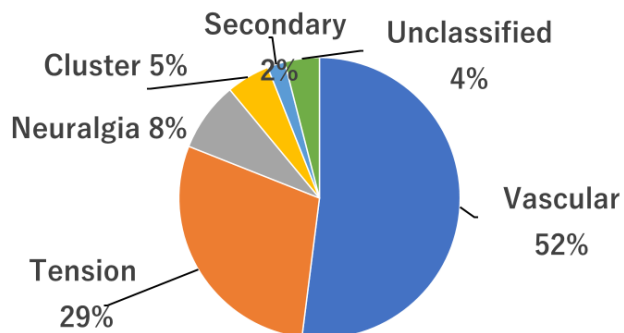
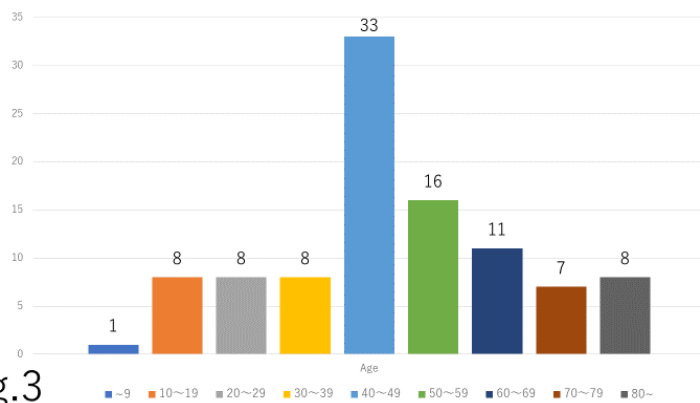
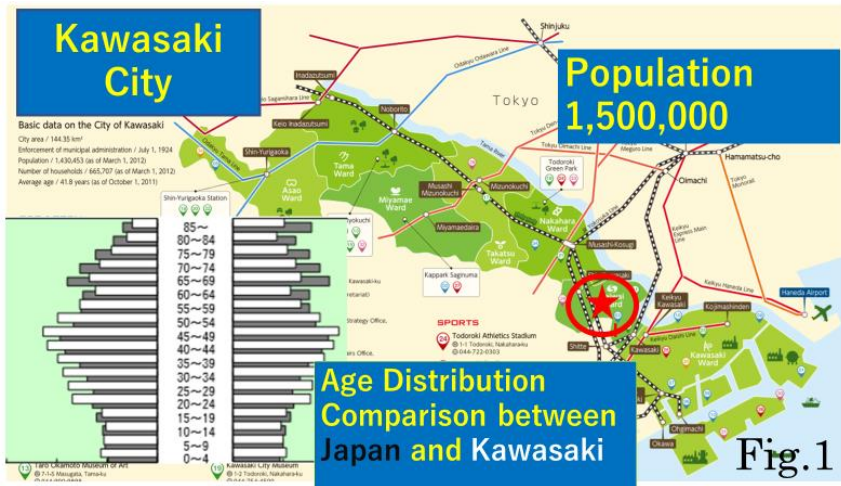


Table 1 Summary of Cases with Arterial Dissections

| | No | Vascular -like HA pulsating | Tension -like HA pressing | Neuralgia -like HA stabbing | Habitual headache | HT |
|---|----|-----------------------------------|---------------------------------|-----------------------------------|-----------------------------------|----|
| Vertebral artery dissection | 19 | 15 | 1 | 3 | 8 Migraine 7 Tension type 1 | 7 |
| Internal carotid artery dissection | 2 | 1 | 1 | 0 | 0 | 1 |
| Other artery | 1 | 0 | 1 | 0 | 0 | 1 |

HA:headache HT:hypertension

Representative Case with
a Left Vertebral Artery Dissection



Fig5a Normal MRI of first visit complaining of migraine (6 12 2017)

Fig.5b Left vertebral arterial dissection after sudden severe headaches (12 26 2017)

DSA of left vertebral artery showed occlusion of distal vertebral artery Right internal carotid arteriogram showed retrograde filling of basilar artery (Fig5c left, Fig5d right) (1 10 2018)

Fig5 e Nearly normal left vertebral artery (3 14 2018)