Intravenous Aspirin for Intractable Headache and Facial Pain

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SYNOPSIS

Intravenous aspirin (DL-lysine-acetylsalicylate; Venopirin®) has been available in Japan since 1983. One vial of the agent contains 497 mg of aspirin. We have tried the agent to abort or prevent intractable headache and facial pain. Subjects consisted of 15 intractable headache and facial pain sufferers, whose diagnoses were based upon clinical criteria at the time of the visit. These diagnoses included combined headache 6, common migraine 5, symptomatic trigeminal neuralgia 2, effort migraine 1 and non-migrainous vascular headache 1. One vial of the agent was injected intravenously over 3-5 minutes. The efficacy was judged as either excellent (complete relief), good (almost complete relief), fair (incomplete relief) or poor (no relief). Of the 15 subjects, 4 patients (common migraine 2, effort migraine 1, and non-migrainous vascular headache 1) demonstrated excellent responses, and 7 patients were noted to have good and 4 patients fair responses. In a case of effort migraine intravenous aspirin prevented the attack completely. No serious adverse effects were encountered. It is concluded that intravenous aspirin is highly useful for intractable headache and facial pain in acute situations. Further clinical trials are worth undertaking.

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INTRODUCTION

Intravenous aspirin (DL-lysine-acetylsalicylate; Venopirin®) (Figure 1) has been available in Japan since 1983. One vial of the agent contains 497 mg of aspirin. We have tried the agent to abort or prevent attacks of intractable headache and facial pain.

In this preliminary report we will emphasize the efficacy and usefulness of intravenous aspirin in the acute situation. We will also discuss the possible mechanism of analgesic action of the agent on vascular headache.

METHODS

Subjects consisted of 15 intractable headache and facial pain sufferers ranging from 25-58 years of age (11 women and 4 men). The diagnoses were based on clinical criteria after the Ad Hoc Committee, and made at the time of the visit. Patients were excluded who demonstrated intracranial lesions, such as subarachnoid hemorrhage, meningitis, etc. verified by CSF examination or cranial CT.

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The diagnoses included combined headache 6, common migraine 5, symptomatic trigeminal neuralia 2, effort migraine 1 and non-migrainous vascular headache 1.

One vial of intravenous aspirin dissolved in 10 ml of distilled water or saline was injected intravenously over 3-5 minutes.

The grade of the pain before the injection was classified as "severe" (most severe pain ever experienced), "moderate" (disabling pain) and "mild" (bearable pain) by inquiry.

The efficacy of the agent was judged by questioning the patients as to the grade of the pain every 5 minutes following the injection. The clinical responses were classified as either "excellent" (complete relief), "good" (almost complete relief), "fair" (incomplete relief) or "poor" (no relief).

RESULTS

The efficacy of intravenous aspirin on each pain was as follows (Table 1):

1) common migraine

The majority of the patients complained of either "severe" or "moderate" pain of several days duration at the time of the visit, suggesting "status migrainosus".

Oral or suppository analgesics tried prior to the visit were not effective at all.

The efficacy of intravenous aspirin was judged "excellent" in 2 cases and "good" in 3 cases. In the cases with "excellent" results, the patients reported the dramatic disappearance of the pain within 10-15 minutes following the injection.

2) combined headache

Two cases were judged as "good" and 4 cases "fair".

In this group, there was no "excellent" response, and the patients complained of dull pain or heavy sensation of the head even after the injection, which suggested the persistence of the muscle contraction component of combined headache after injection.

3) effort migraine

Intravenous aspirin showed an "excellent" effect not only by aborting but also preventing the attack of headache in a case with effort migraine.

The details of this case will be presented later.