PHENYLPROPANOLAMINE INDUCED INTRACEREBRAL HEMORRHAGE – THE DIET PILL BLEEDS AGAIN

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INTRODUCTION
Intracerebral Hemorrhage (ICH) is a common pathology seen in the neurocritical care setting and is associated with significant morbidity and mortality.

ICH accounts for 8-13% of all strokes with a 30-day mortality rate of 44%.

Phenylpropanolamine (PPA) is an alpha-adrenergic and beta-adrenergic receptor agonist as well as a dopamine receptor D1 partial agonist that is found in appetite suppressants and decongestants.

We report a case of ICH secondary to PPA use.

CASE PRESENTATION
Forty year old female with no prior medical history, who presented with acute onset headache and left sided hemiparesis and hemianesthesia.

No history of trauma, was only taking a diet pill for weight reduction that she obtained from Mexico.

Initial NIHSS of 16.

Vital signs within normal range (BP - 128/84, P - 92, RR - 16, T - 96.5 F).

Patient was admitted to the Neurocritical Care Unit for her ICH score of 2.

Lab work showed no evidence of coagulopathy or drug abuse.

Patient became somnolent, repeat CTH showed hydrocephalus and worsening edema. Osmotherapy was initiated with no improvement.

Four vessel digital subtraction angiography (Figure 3) was performed to further evaluate the etiology of her hemorrhage, results of which were unremarkable.

Patient improved after a decompressive hemicraniectomy and was subsequently extubated.

She was transferred to the inpatient rehabilitation unit and was eventually discharged with a wheelchair.

IMAGING

Figure 1 - CTH
Intraparenchymal hemorrhage in the right anterior striatocapsular region and insular cortex.

Figure 2 - CTA
Vertically oriented vascular pedicle in the region of the posterior right lentiform nucleus, coursing through the hematoma, known as the spot sign. No malformations of aneurysm seen.

Figure 3 - DSA
Digital Subtraction Angiography revealed no aneurysms, vascular malformations, AV shunting, intracranial stenosis or evidence of vasospasm.

Figure 4 - Repeat CTH
Patient status post right decompressive craniectomy with residual hemorrhage.

Figure 5 - MRI
Diffusion restriction of right lentiform nucleus. Additional punctate foci of diffusion restriction are evident in the left cerebral hemisphere: a consequence of recent angiography.

DISCUSSION
Prior evidence had shown that PPA was associated with higher rates of ICH.

In November 2000, the FDA formally recommended that PPA was not safe for OTC use and asked manufacturers to discontinue marketing of products containing PPA. Results of the Hemorrhagic Stroke Project led to the withdrawal of PPA from the US market in 2005. The drug was also withdrawn from the Canadian market in 2001.

However, the drug is still available in Mexico, Europe and online markets and can be easily obtained as an over the counter medication.

CONCLUSION
In young patients with no known comorbidities, PPA use should be considered a primary etiology of ICH when no intracranial vessel abnormality can be detected.

REFERENCES