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Beauty Parlor Stroke Syndrome in A 32 Year-Old Female: A Case Report

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ABSTRACT

Purpose To describe a case report of the beauty parlor stroke syndrome in a 32 year old patient

Summary: Beauty parlor stroke syndrome, otherwise known as a Hairdresser-related ischemic cerebrovascular event (HICE) or vertebral-basilar ischemia (VBI), is a rare phenomenon caused by either cerebral artery dissection or vertebral artery compression due to neck positioning and manipulation at the hair salon sink bowl. Majority of the cases previously reported occurred in elderly women, rather than younger patients. We describe a case of beauty stroke syndrome in a 32 year-old patient with no prior medical history or risk factors such as atherosclerotic disease, diabetes, hypertension and hyperlipidemia.

Conclusion: The 2014 Stroke guidelines issued a warning to healthcare professionals regarding the risk of cervical artery dissections following cervical manipulative therapy in young and middle-aged adults. However, the risk of cervical artery dissection following manipulation at the shampoo bowl was not specifically mentioned. Practitioners must be cognizant of the various symptoms of beauty salon syndrome, and intervene in a timely manner to prevent potential ongoing issues.

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Key points

1. Beauty parlor syndrome is a rare cause of stroke caused by either cerebral artery dissection or vertebral artery compression due to neck positioning and manipulation at the hair salon sink bowl.
2. Most case reports have been in elderly or middle aged female patients but young patients can experience beauty parlor syndrome as well
3. Providers should be cognizant of beauty parlor syndrome being a potential cause of stroke and screen patients appropriately to intervene

Text

Beauty parlor stroke syndrome, otherwise known as a Hairdresser-related ischemic cerebrovascular event (HICE) or vertebral-basilar ischemia (VBI), is a rare phenomenon caused by either cerebral artery dissection or vertebral artery compression due to neck positioning and manipulation at the hair salon sink bowl [1]. First reported as a five case series report in JAMA in 1993, the cases involved women who developed stroke symptoms such as ataxia, dizziness, vertigo, as well as in some cases dysarthria and dysphagia after an extended period of time at the shampoo bowl. The author concluded that the head-hyperextended position may be an independent risk factor for stroke and transient ischemic attack (TIA) in elderly women and this position should be avoided.

Since then, additional reports of beauty parlor stroke syndrome have been published, although publications have been overall limited to small case series. Shimura et al identified 12 women who experienced brainstem and/or cerebellar symptoms within one day of visiting the beauty salon [2]. The patients' age ranged from 37-70 and most common symptoms experienced were dizziness, nausea and hemiparesis. The authors concluded that the head-hyperextended position, such as the extension over a shampoo bowl was a risk factor for vascular insufficiency, even in middle-aged women [3]. In 2016, Correia et al described all ischemic strokes and TIAs in relation to hairdresser visits in a single medical center from 2002 to 2013. The authors identified ten cases, 90% of which occurred in females. The average age of the patients was 76 and they were found to have less major risk factors for stroke such as hypertension, diabetes, hypercholesterolemia and atrial fibrillation than the control group of patients admitted to the medical center's acute stroke unit within 24 hours of symptom onset. Out of the 10 patient cases, 2 patients experienced symptoms such as unilateral head and neck pain immediately following the hairdresser visit and were found to have carotid artery dissections. Another patient experienced hemiparesis at the end of the hairdresser visit. The

authors concluded that while hairdresser visits may be a cause of cervical artery dissection, the data was insufficient to provide recommendations for persons visiting the hairdresser.

We present a case of a 32 year-old female who presented to the emergency room with complaints of generalized fatigue, light headedness, nausea/vomiting, diplopia, left sided weakness, severe headache and the sensation that she was "going to die". Prior to her presentation, she had been working out at the gym, when symptoms began. Her past medical history was significant only for previous miscarriage within the first trimester > 5 years ago, but not significant for any history of astherosclerotic disease, diabetes, hypertension, hyperlipidemia, or other risk factors. She reported no major trauma, but reported she had visited the chiropractor 2 months prior for cervical manipulation. Familial history and social history were not significant as well. Vitals upon admission were stable, and at presentation to the emergency room the NIH Stroke Scale assessment yielded a score of 1, due only to the presence of ataxia in the left leg. The initial MRI of the brain demonstrated an acute left cerebellar infarct in the left posterior inferior cerebellar artery, and further CT of the head confirmed a left vertebral artery dissection as the suspected cause of the stroke. Given that the patient was not deemed a candidate for TPA, as symptoms had begun greater than 4.5 hours prior to her initial presentation, she was instructed to take aspirin 325 mg daily and atorvastatin 10 mg once daily as secondary stroke prevention, and follow up with the neurologist at a later time. NIH stroke index was 0 twenty four hours after initial presentation and she was deemed safe for discharge. At later follow-up she was instructed to continue aspirin and statin therapy, but not considered for a hypercoagulable work-up given likely cause of stroke.

Two weeks later, the individual returned to the emergency room with complaints of sudden dizziness, right numbness, bilateral vision loss reported as "turning upside down then a complete loss of sight", and headache. Upon presentation, she denied any recent trauma, but stated that she had visited the beauty salon twenty four hours prior to get her hair done. She reported a sedentary lifestyle for the past month, as she had been concerned about her previous stroke and potential stroke reoccurrence. NIH stroke scale was performed with a score of 0, despite a few symptoms. The initial MRI demonstrated an area of restricted diffusion within the right parietooccipital lobe, consistent with an acute infarct, and CT angiograph of the neck demonstrated a new, likely subacute, small posterior left cerebellar infarct, when compared to the CT dated one month prior. Significant stenosis of left vertebral artery continued to be present. At that time, given the new thrombosis, she was initiated on heparin drip and admitted to the neurocritical care unit. After 48 hours, she was discharged with an uneventful hospital stay, transitioned to enoxaparin therapy with plan to bridge with warfarin.

MR angiogram was performed three months after initial presentation. Upon observation, the initial area of dissection was healed, at which time it was thought that prolonged anticoagulation was not necessary. She was discontinued off of warfarin therapy and atorvastatin and recommended to continue with aspirin 81 mg once daily indefinitely.

The 2014 Stroke guidelines issued a warning to healthcare professionals regarding the risk of cervical artery dissections following cervical manipulative therapy in young and middle-aged adults. However, the risk of cervical artery dissection following manipulation at the shampoo bowl was not specifically mentioned. In addition, all of the case reports describing beauty parlor stroke syndrome involved patients of middle and older age rather than those 30 y/o or younger. Nonetheless, practitioners must be cognizant of the various symptoms of beauty salon syndrome, and intervene in a timely manner to prevent potential ongoing issues.

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