Cardiac Cephalgia and Cardiac Migraine

Sir,

We read with immense interest an article entitled “headache as the sole presenting symptom of acute myocardial infarction” by Saikia and Charkarborti published in January issue of JAPI VOL – 57, page 83-84. The authors have worked up a patient who initially presented with headache and on detailed workup ultimately turned out to be a cardiac/coronary event. Here we would like to comment upon authors views, share our experience of such a patient and discuss the clinical entity in brief:

1. Authors have said in the beginning that the “international classification of headache disorders does not include acute myocardial infarction (AMI) or acute coronary syndrome (ACS) as one of the rare causes of headache”, but in contrary to authors depiction the international classification of headache disorder (ICHD-ii) have quoted cardiac cephalgia under the heading of ICHD-ii- secondary headache disorders with depiction of some second digit categories (10.6). In fact cardiac cephalgia is headache that is associated with myocardial ischaemia usually associated with exertion so is also an uncommon cause of exertional headache.

2. Furthermore the authors have quoted that “he (the patient) also had an episode of apprehension 5 days back associated with perspiration”, while the authors have cited headache as the only presenting symptom of MI in the title. Nitrates were also used for treatment of patient: so it would have been worthwhile to mention that whether there was any aggravation of headache with nitrates or not which may happen many a times and an another anti-anginal drug like nicorandil is preferred at such moments.

3. One of our patient a 65 years old male, normotensive nondiabetic who was on carbamazpine for post-traumatic seizures came to me one early morning around 8 am with only complain of severe bursting holocranial headache since 2 am in night who on further asking about associated symptoms came out with history of transient perspiration and apprehensiveness at the onset of headache but not thereafter. The patient was in bed and there was no history of exertion. On examination vitals were stable and had no focal neurological deficit. He was asked to get done ECG urgently for which the patient and his son both were reluctant keeping in mind the illness to be ‘cardiac migraine’. Anginal pain may also be referred to the head.

5. Authors also quoted that patient did not complain of chest pain at any time, but in our view, clinically if a patient presents with exertional headache, perspiration and palpitation, definitely it will point to some extent for looking into cardiac cause even if chest whether pain chest is present or not.

6. The mechanism of cardiac cephalgia is likely secondary to convergence of sympathetic or vagal afferent input and convergence of Lissauar tract with upper cervical root input (to explain posterior headache or with the Pars Caudalis of the trigeminal nucleus and tract (to explain anterior headache).

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References

Reply from Author

Sir,

Our sincere thanks and appreciations to Drs. Subhakaran and Girdhari Dhayal for the observations and comments on our correspondence published in January issue of JAPI – vol. 57, page 83-84.

1. We do apologize for the oversight to note a condition called “Cardiac Cephalgia” included in the International Classification of Headache Disorders (ICHD-ii) code 10.6 in the group of secondary headaches attributed to disorder of homoeostasis, which is related to headache of cardiac origin e.g. exertional headache due to IHD. Headache may be the only manifestation of ischemic cardiovascular event in 27% of cases. Similar to angina it is aggravated by exertion and relieved by rest or nitrates. Cardiac enzymes, ECG and even exercise stress test may prove negative. Only coronary angiography provide sufficient clue to the diagnosis. In the cases of Cardiac Cephalgia, besides headache – angina, palpitation, dyspnoea, etc. can also occur. Our patient had only exertional headache on the occasion of 1st admission which was relieved immediately on catheterization of coronary arteries. On the occasion of 2nd admission, besides exertional headache, he had cough and dyspnoea with signs of ALVF.

2. Our patient had an episode of apprehension associated with perspiration 5 days back which was relieved by rest and ignored by him. He had headache during that time also, but somehow he was able to bear it. On reviewing the case subsequently, we could correlate this to CAD.
3. Our patient was administered nitrates during the course of treatment once the diagnosis was confirmed to be CAD. He could tolerate nitrate well and he is still continuing. Nicorandil is an alternative to nitrate intolerant patients.

4. We have observed that the authors have neither clarified whether the resting ECG changes were co-existent to any other cause of headache nor the outcome of anti-angina treatment. We recommend that further investigations to rule out cranial cause of headache and also to establish CAD on the patient cited by the authors would furnish stronger evidences to support the diagnosis of Cardiac Cephalegia.

When the headache occurs as the only manifestation of an acute coronary event, the pointers to diagnosis are a) older age of onset, b) no past medical history of headache, c) presence of risk factors for vascular disorders, and d) onset of headache under stress. It should be suspected in patients with a history of ischemic cardiopathy who present with de novo headache even when angina pectoris is absent, especially if the headache improves with nitrates.

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