

## Background:

Headache is one of the commonest presentations GPs and Emergency Department. It is well recognized that patients with unremitting severe headaches with other accompanying symptoms such as vomiting, altered mental status, abnormal neurological symptoms and signs mandate further evaluation including advanced imaging. After exclusion of intracranial haemorrhage, meningitis/encephalitis and structural brain lesion, the majority of remaining cases generally have more “benign” causes and course.

Another oft encountered clinical situation is headache in the patient with elevated blood pressure. It is a common belief that headache is related to elevated blood pressure. Whether it is the headache that causes the elevated pressure or vice versa is debatable. Data from ED patients in USA did not find any correlation between elevated BP and headaches. In fact, thinking that a patient’s headache is due to elevated BP may result in one missing on serious causes (e.g. SAH, spontaneous subdural haemorrhage). Any change in the usual headache pattern, presence of new associated symptoms, or new onset in elderly should make one consider referring the patient for advance imaging of the brain.

## Case Presentation

A 61 years old male presented with a GP referral for further evaluation and management of severe hypertension with an office blood pressure of 220/110 mm Hg (see Figure 1). On presentation to our ED triage, his blood pressure was 126/85 mmHg. His presenting complaint to his GP was headaches. It was around midnight and our ED was on "skeletal staffing" for the night shift and attending to several critically ill patients (requiring intubation and mechanical ventilation). As he was alert, ambulant and did not exhibit any focal neurological signs on a brief screening examination, he was moved quickly into an observation bed for review later. Several hours later (with cessation of the surge of critically ill patients), a more detailed history and physical examination could be performed. In order to get a better understanding and appreciation of the progression of his presentation, he was persuaded to trace out the temporal relationship of his pain score and time (see Figure 2). What started out as a gradual onset of headache was punctuated by an abrupt steep worsening which provided fresh impetus and conviction to get our radiologist to perform a non contrast CT of his brain. CT brain showed an acute subdural hematoma (spontaneous as there was no reported injury). He was admitted and managed conservatively by our neurosurgeon with good outcome

61 Chinese Male

Dear Doctor,

Thank you for seeing Mr. Lim. He is Headache x 7 since evening.

CP BP 200/120  
RR 16/min  
No Chest Pain  
No Grogginess

Is Hypertension

Figure 1. Anonymized Handwritten referral letter from his General Practitioner

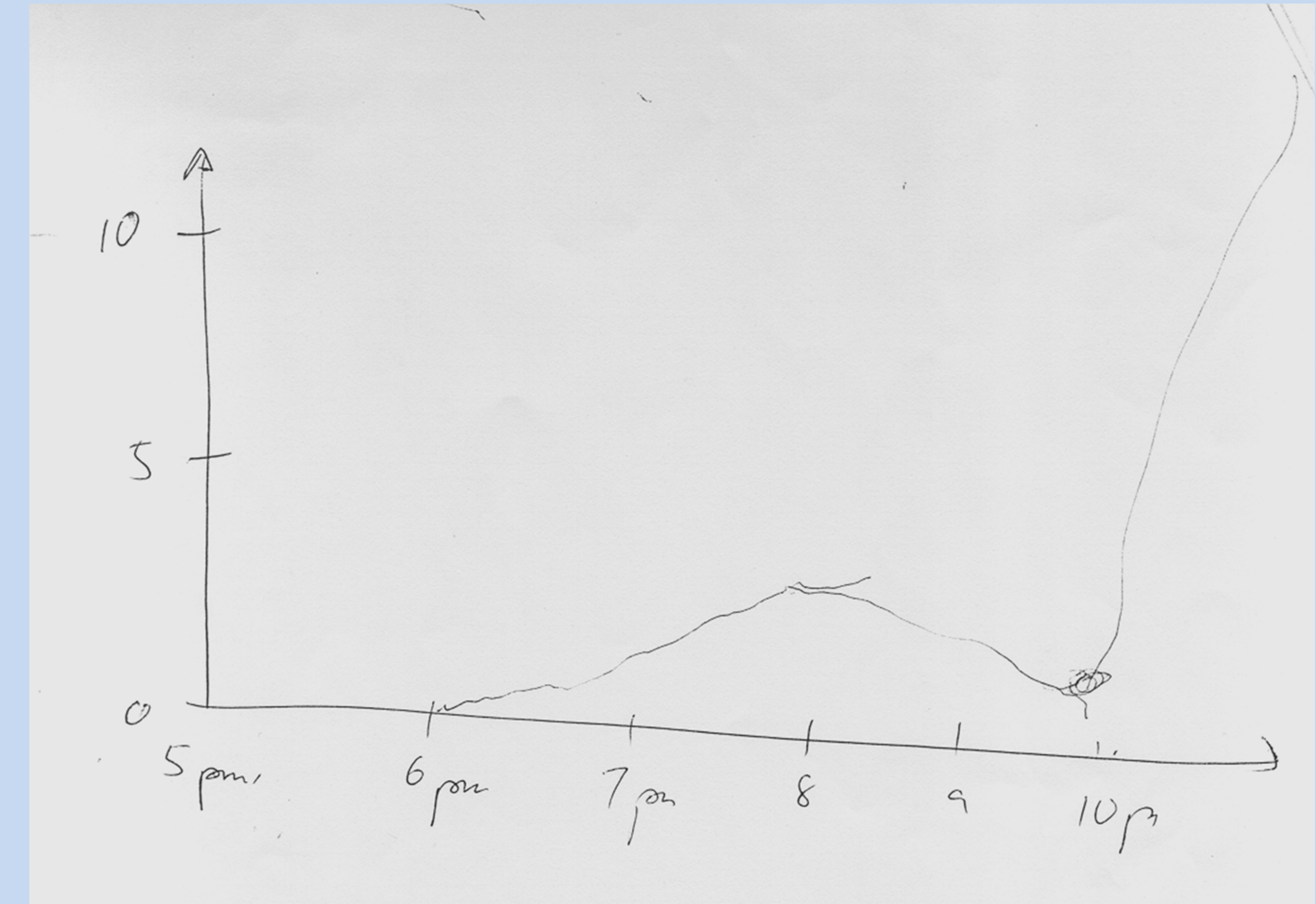


Figure 2. Hand drawn temporal relationship of pain score by patient

## Conclusion & perspectives :

This is the first occasion where I have asked a cooperative and cognitively intact patient to describe the temporal characteristic of their pain (headache). This experience reinforced the importance of eliciting the characteristics of the onset of symptom of pain. Often, patients presenting to the ED will describe their pain as acute, sudden, severe etc. The use of visual representation provides an invaluable opportunity for the physician and the patient to clarify on the severity and importantly the onset.

Since then, I have used this technique more often, in appropriate patients, to obtain vital information in my bid to rule out life threatening causes.