lesions are often symmetric, low to isointense on T1, and hyperintense on T2. The extent of T2 and diffusion weighted imaging (DWI) signal abnormalities correlate with patient's outcome. High DWI signal intensity and pseudo-normalized ADC (ADC values that were paradoxically normal) may represent the earliest sign of non-reversibility as severe vasogenic oedema progress to cytotoxic oedema.

Main clinical conditions to be differentiated in order of preference are bilateral posterior cerebral artery stroke, cerebral venous thrombosis, encephalitis, and demyelinating disorders. Posterior leukoencephalopathy needs to be recognized promptly, as the syndrome is reversible with aggressive control of blood pressure (10-20%) decrease in mean arterial pressure is sufficient to terminate the process), treating associated metabolic abnormalities or by decreasing or even discontinuing offending immunosuppressive agents if needed. Patients usually remain seizure free after resolution of imaging abnormalities and do not require chronic anti-epileptic treatment. When unrecognized, the disease can progress to ischaemia massive infraction and death.

Conclusion
Posterior leukoencephalopathy is an uncommonly recognized neurological syndrome complicating various medical disorders, use of immunosuppressive agents and list of other medications. Early recognition and treatment can revert both neurological deficits, as well as radiological abnormalities, which was achieved in cases reported by prompt intervention. If appropriate management is delayed, there is a great risk of permanent neurological damage due to ensuing cerebral infraction.

References

Case Report

Role of Stellate ganglion block in post CABG sympathetically mediated chest pain
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Abstract
Acute chest pain is a common presentation in emergency. After clinical assessment undiagnosed chest pain can become a difficult problem. Sympathetically mediated chest pain is a rare presentation, as it is similar to that of secondary hyperalgesia in the intact skin surrounding an injury site. We are reporting a case of a 62 years old man who presented with atypical chest pain four months after coronary artery bypass grafting (CABG). On investigation no new change was noticed than previous evaluation. On chronic pain assessment he was having hyperalgesia to light touch in addition to the spontaneous chest pain. He was treated as a case of sympathetically mediated chest pain, pain modulators, analgesics and Stellate ganglion block. Patient responded dramatically to Stellate ganglion block and returned to work within two weeks time. This case illustrated the importance of early diagnosis of sympathetically mediated chest pain and role of Stellate ganglion block.

Introduction
Acute Chest Pain is a common reason for emergency hospital attendance and admission. Patients with chest pain that remains undiagnosed after clinical assessment, ECG and chest radiograph pose a particular problem. Most patients with undifferentiated chest pain do not have a coronary syndrome, whereas anxiety and psychological morbidity are common and appear to be associated with impaired quality of life. Effective and safe evaluation of chest pain is associated with reduced hospital admission, improved health care utilization, improved patient satisfaction and is cost effective. Post coronary bypass grafting (CABG) patients are...
referred to the pain clinic for management of symptoms of brachial plexus traction, scar pain, persistent costochondral junction pain or upper limb complex regional pain syndrome. In our literature search we did not find any case report of sympathetically mediated post CABG chest pain. We are reporting a case of a post CABG patient who was admitted in the cardiology unit with atypical chest pain. He was diagnosed as a case of complex neuropathic and sympathetically mediated chest pain. Chest pain was managed successfully with Stellate ganglion block and patient returned to work within two weeks time.

Case Report

A 62 years old man, security guard by profession was a known case of hypertension and ischaemic heart disease. He had CABG four month ago. He presented to the emergency room with left pre-cordial pain, which was spontaneous, dull, episodic and shooting in nature. On admission in cardiology service he was investigated for acute coronary syndrome. ECG, chest X-Ray, and laboratory investigations revealed no new change compared to previous examination. Initially diagnosis of refractory angina was made. Management for acute coronary syndrome was continued and coronary angiography was done, which showed patent coronary grafts and normal ejection fraction. A consultation was requested for chronic pain team. On evaluation the intensity of chest pain was 7/10 on visual analog scale (VAS) spontaneous, continuous, dull and episodic shooting pain. It was aggravated by left arm movement and light touch. Mild swelling and skin colour changes were noted on sternotomy scar but there was no temperature changes. Initially patient was managed with intravenous morphine infusion, oral Gabapentin and tricyclic antidepressant. No relief in symptoms occurred in one weeks time. Diagnostic left stellate ganglion block was planned and given with bupivacaine and depomedrol. Stellate ganglion block provided instant pain relief. The patient was discharged on tramadol, gabapentin and tricyclic antidepressant. On follow-up after one week the patient's symptoms were markedly relieved. Medication were tapered off gradually. Patient remained symptom free and returned to work after two weeks.

Discussion

The diagnosis of our patient was complex because symptoms were of nociceptive, neuropathic pain and localized autonomic changes were noticed. Relief of symptoms did not occur with pain modulator, anticonvulsant and morphine infusion. They were relieved with Stellate ganglion block. The exact mechanism of severe chronic chest pain, hyperalgesia and allodynia in our patient is not known.

However chronic pain accompanied by autonomic dysfunction in the same region is taken to indicate reflex sympathetic dystrophy. Typically hyperalgesia to light touch is present in addition to the spontaneous pain. The absence of heat hyperalgesia indicates that the underlying mechanism is central rather than peripheral sensitization. This mechanism is similar to that of secondary hyperalgesia in the intact skin surrounding an injury site. Sympathetically mediated pain is not due to hyperactivity of sympathetic efferent but receptor super sensitivity probably by over expression of alpha-1 adrenergic receptors on nociceptive primary afferents. Normal level of norepinephrine can cause pathological spontaneous activity of nociceptors which maintain the central sensitization. Secondary hyperalgesia to mechanical stimuli is likely due to the sensitization of central pain signalling neuron. This sensitization could involve only input from nociceptors. Central sensitization could also be the result of enhanced connectivity between low threshold mechanoreceptors and central pain signalling. This form of sensitization may account for the pain to light touch associated with neuropathic pain. Receptor field plasticity is a prudent property of dorsal horn nerves and probably plays a vital role with regard to hyperalgesia.

Stellate ganglion block has been extensively used in clinical practice for the management of painful condition such as cephalic, facial, ocular, refractory angina and upper limb pain. Yet its mechanism of action and its analgesic efficacy are poorly understood. The mechanism of action may involve reduction of substance P in the spinal cord and pain catecholamine release caused by noxious stimulation.

Early recognition and aggressive management of neuropathic sympathetically mediated chest pain is critical to successful outcome. This case illustrates that the diagnosis of sympathetically mediated pain is essentially clinical and that proper diagnosis and treatment with sympathetic blockade can be very rewarding. Stellate ganglion block offers an important therapeutic option for treatment of undifferentiated post CABG chest pain.

References

A Structured and Standardized National Postgraduate Medical Trading Policy: Need of the time

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Postgraduate medical training is essential for the production of specialists and provision of specialist care in the health care system. According to the economic survey 2005-06, the public health sector in Pakistan suffers from considerable inadequacies with only one doctor available for 1,310 patients. The total number of doctors registered with the Pakistan Medical and Dental Council (PMDC) till January 2007 are 10,393 and total number of doctors registered as specialist are 1,897.

Although the ratio between available health facilities and the population has recorded a slight improvement over last years and the number of doctors has increased but it is still below the recommended ratio of one doctor for 1,000 patients. This suggests that Pakistan needs to produce more doctors.

There is a rapid upsurge of private medical institutes in the country in the last two decades. At present there are 57 medical and dental colleges recognized by the PMDC and about half of them are in private sector. About 6085 students get admission per year in these colleges. Though the numbers of private medical colleges in the country are almost similar, however, only about 30% medical students get admission in the private medical colleges. This is due to the significantly lower numbers of the available seats in the private sector. A significant number of doctors emigrate and few hundreds physicians per year stop practicing for various reasons.

Pakistan's population is over 165 million in 2006. With rapidly growing population and rapidly growing field of medicine there is an inevitable need of medical practitioners, both generalists and specialists in the country. The current ratio 0.473 physicians per 1,000 population in Pakistan is inadequate to maintain the nation's health.

There are many postgraduate medical centers in Pakistan, that are providing excellent training programmes, better than some training hospitals in developed countries. However, there is no standardized and structured postgraduate medical career programme at provincial or national level. Private medical institutions are flourishing in Pakistan, especially in Sind and Punjab and many postgraduate training institutions have been upgraded to university status and are getting more autonomy. The availability of up-to-date medical facilities and well remunerated highly qualified faculty helps in providing a better quality post graduate training in some of these institutions. However, training of doctors in some of the public funded postgraduate medical institutes without any remuneration and exploitation of postgraduate doctors is a well known fact. Funding for training is a major issue in Pakistani health system. There have been major changes in the health service in Pakistan over the last few years. The emphasis has shifted from tertiary care to primary and secondary care. However, due to lack of careful planning and financial restraints, funding for the teaching hospitals has reduced. The teaching hospitals are less willing to pay the salaries of the trainees. This is particularly true for new trainees who do not have longstanding posts as medical officers. Most of the trainees therefore fund themselves. Recently the College of Physicians and Surgeons have put a ban on having unpaid trainees in the training centers. This may result in future reduction of training posts.

Majority of Pakistani doctors wish to go abroad to obtain training. Many want to continue working there due to better financial rewards and many do not want to come back to Pakistan due to inadequate facilities and poor working conditions. A significant proportion of these doctors prefer to go to UK and USA. Overseas doctors make up about one third of the junior doctors work force in United Kingdom. Over the past few years significant changes in the immigration and training system in UK has seriously caused concern to non-EEA International Medical Graduates (IMG) to seek training post in UK. The recent changes in the immigration rules in United Kingdom came into effect in April 2006. Accordingly all postgraduate medical and dental training positions are now defined by the Home Office as employment posts and would require work permit. To obtain a work permit, employers have to...