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Case Report A SCITECHNOL JOURNAL

Parsonage Turner Syndrome: A Rare Syndrome following Trauma or Post Vaccination

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Abstract

Parsonage turner syndrome also known as idiopathic brachial plexopathy or neuralogic amyotrophy is a rarer disease usually involving the left shoulder girdle with acute pain and sometimes even right, but rarely both, while in the case presented, both the shoulder girdles were involved and it didn't start with acute sholder pain as described in literature. The diagnosis is often missed despite liberally done investigations, only one out of 15 superspecalists could diagnose it. It could be post-infectious, post-operative, post-trumatic and post-vaccianation.

Keywords: Parsonage Turner Syndrome; Neuralgic Amyotrophy; Hysteroscopy

Introduction

Parsonage Turner Syndrome (PTS) is a rare syndrome that may occur in totally healthy person or following trauma, surgical or otherwise, shingles or post-vaccination. It starts as pain in the shoulder girdle which may be very severe for 1-4 weeks to get the patient to wake from sleep. The pain is replaced by weakness of the shoulder girdle and the upper limb, changes in the reflexes and sensory abnormalities also known as brachial neuritis or neuralgic amyotrophic [1,2]. HSS Journal 2010 PTS, was first reported in 1948 by parsonage and turner, but the condition has been reported as far back in 1897 in literature. The pain in the shoulder girdle is more at night lasting 1-2 weeks or more. Weakness in the muscles may start in a few days to a week's time and there may sensory deficits even up to 66% of the patients. Though initially reported in 1.64 in 1 lakh patients, it's felt that the incidence is more because of the diagnosis being missed. Weakness and atrophy of the muscles is obivious in a month or so. Hence PTS must be suspected in a patient compiling of acute pain in the shoulder girdle; post shingles, post-surgery especially cardiac, oral, orthopedics surgery, hysteroscopy or taurma or with connective tissue disease like Systemic Lupus Erythematosis (SLE) which are the commonest causes, but there are numerous other factors which are relatively rare. Some more common ones in addition to the mentioned above are viral illnesses and immunizations, the latter two being reported as numer two. The development of PTS symptoms post-surgery can develop within 24 hours or upto a week or more [3-5].

The post-surgery nerves usually involved are supra scapular nerve, long thoracic nerve, the aterior interosseus, the axillary nerve and phrenic nerve. Early diagnosis of PTS is a must for taking steps for early and accurate treatment [6]. Least commonly involved nerves are ulnar, radial and median nerves MRI of the shoulder girdle and neck and Electromyography (EMG). May also help in diagnosis to some extent if the physician has diagnosis in mind as there are minor changes like hour-glass appearance of the nerves or kinking of nerves in MRI and denervation or re-innervation of the nerves in EMG. Treatment recommended is cortical steroids or immunotherapy but more studies are required to confirm/reject the treatments. Physiotherapy is the main stay of treatment which takes 6 months to 3 year [7]. Benicar's operations is a long and tedious operation which even the most experienced orthopadiacion or neurosurgeon fear to tread as this may even cause death and hence the patient to is not ready for such operation if told of the worst [8].

Case Representation

The author, a right hander himself suffered from parsonage turner syndrome and I play lawn tennis thrice a week. On January 3rd 2019, I went to play tennis and to my surprise, my service could not cross the net, next day to the same happened. Then I start consulting top orthopadicaions, neurologist, but none could diagnose it and MRI of the cervical spine were done and the MRI showed (Table 1) [9].

Right shoulder showed
Acromion clavicular arthropathy.
Small intraosseous ganglion cysts in the head humorous posterior laterally and anterior to bicipital groove-degenerative.
Elongated cystic lesions in the deep fibers of the infraspinatus muscle. Along the posterior scapular border likely sequel to old focal muscle tear.
Supraspinatous tendenopathy Sub acromion bursitis.

Table 1: Author explanation of the right shoulder diagnosis.

MRI findings are suggestive of marrow edema in the greater tuberosity of humorous with partial thickness tear in the tendon of supraspinatus close to insertion with mild fluid right shoulder MRI reported as acromion-clavicular arthropathy elongated systic legints on the deep fibers of infraspinatus muscles along the posterior stapler border likely of old focal muscle tear. Supra spinatous tendnopathy and sub acromion pursuits. I was advised neck collars and physiotherapy it may be noted here there was no pain in the shoulder girdle. After 40 days or so I had a fall prone position but due to weakness in the right I could not get up for 3 hours and I was alone in the room and lay in the abducted arms in prone positions and on getting up with help my right arm which was feeling week got perfectly well within a week and left arm was fully swollen and hypothetic. MRI of the neck, shoulder girdle and x-rays were done which shows. 1st day MRI of the shoulder shows findings suggestive of marrow edema in greater tuberosity of humorous with partial thickness in the tendon of supra sipanatous close to its insertion with mild fluid around it with significant intramuscular Orem in rotator cuff muscle with banker's region in the antiriot inferior globoid labrum. MRI after one month showed mild to moderate degree of free fluids in around the shoulder joints. A month later MRI of the shoulder joint showed infra spinouts and deltoid muscles [10].

- Thinning of the globoid labrum with tear of labrum.
- Sub acromial coracoid bursitis.

I was advised analgesics, a pulse of cortical steroids 240 mlg dexamethasone I/v in 2.2 hours and put on physiotherapy which is still continuing with good effects except deltoid muscles and i can abduct the left arm to above 80 degree unassisted and the posterior head of the deltoid has left a saucer shaped depth as can be seen in the photograph with right arm I am able to play lawn tennis for last 6 months and the strength in the right arm is grade 5 as before [11].

Results and Discussion

Parsonage tuner syndrome incidence though described as 1.64 in 1 lakh population seems to be more frequent say 1:1000 population annually but it is not diagnosed properly as it happened in my case, as the eyes don't see what the mind doesn't know. Since PTS occur post viral infection or surgery as described in the introduction, the physician, surgeon and neurologist, in fact any doctor must take care of PTS. After these conditions with 1-3 weeks or more. How these infections cause this is an enigma, just as herpes zoster can occur just on seeing a herpes zoster patient? It occur more on the left side than the right side but in my case right side was involved first for which no cause could be found and suddenly due to injury to the left arm the right side became totally normal within a week [12]. The other differences were as follows:

- There was no pain in the right shoulder it only started with weakness of the muscles.
- There was involvement of the median nerve.
- There was dryness all over body and I had to apply moisturizer or oil 3-4 times a day while I normally apply rarely except in winter. The dryness is still there after 6 months but decreasing significantly but still existing.
- There were erythematous rashes here and there all over the body appearing and disappearing which could not be put into any diagnosis and the most experienced dermatologist must be satisfied to call them rashes. Rashes decreased in about 6 months as I got better but no medicine was taken for these rashes but these rashes were not totally disappearing it is felt rashes could be due to myoglobin because of injured muscles or some edema in the bone marrow but nothing such has been found in the literature even the nerve supplying the old scars of vaccination like small pox and bug started getting pain which suggests of existence of nerve memory, as also we may feel at prick at the site of intravenous injection given a year ago [13].

Conclusion

Though nerve memory is not mentioned in the literature many top neurologists believe it could be there. 5-6 (pc) all the blood investigations like renal, liver and were within normal limits. Of late the searchers have found a key to how the memories of pain are stored in the brain at neuronal level, but how, is still an enigma. After painful stimulation, the level of PKMZ increases persistently in the central nervous system Andre. However the memory of the muscle is fully established.

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