



TRAUMATIC NEUROMA OF RIGHT THUMB – A CASE REPORT

Orthopaedic

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ABSTRACT

Traumatic neuroma is a non-neoplastic proliferative overgrowth of axons, Schwann cells, and fibroblasts at the proximal end of a transected nerve (1). We report a patient with a traumatic neuroma as an unusual complication following a fall on an outstretched arm. Patient had symptoms of pain in thumb radiating to forearm and swelling in right thumb.

KEYWORDS

Traumatic neuroma , Peripheral nerve injury , Thumb

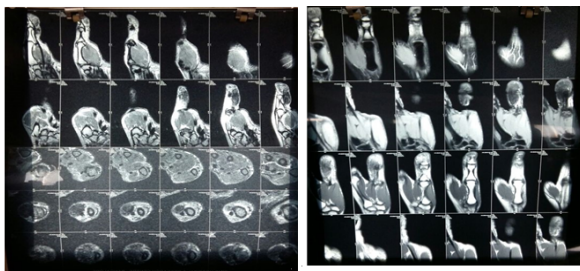
Introduction

Traumatic neuromas result from an attempt by peripheral nerves to regenerate after their fibres have been interrupted. The tumour is a bundle of all the nerve elements in one tangled mass at the distal end of the proximal nerve segment. Because this attempted growth occurs to some degree in all individuals, it is not considered a true neoplasm.(2)

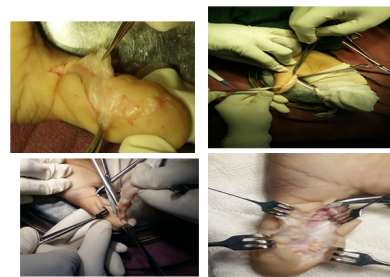
Case report

17-yr-old female came to our hospital with a 1-yr history of continuous pain in right thumb radiating to forearm . She gave history of self-fall on an out stretched arm 1 year back .she described the pain as aching, and burning type. She also noted swelling over the right thumb since 1 year. She denied any initiating event or any emotional stress at the time of onset of her pain. Physical therapy in conjunction with no steroidal anti-inflammatory drugs (NSAIDs) failed to improve her symptoms. She was disabled in performing normal activities of daily living sir to pain. The pain had become progressively worse over the previous few months.

On physical examination two swelling were noted on right thumb on the Palmer aspect. Swelling measuring 1.5 *4cm on the Palmer aspect with irregular margin. No local rise temperature , Tenderness noted over the swelling with irregular margin , mobile swelling with skin over the swelling stretched. X-ray of the hand taken which showed no bony abnormality. MRI of the hand was done and suggested as soft tissue swelling over the distal and proximal phalanx of right thumb.

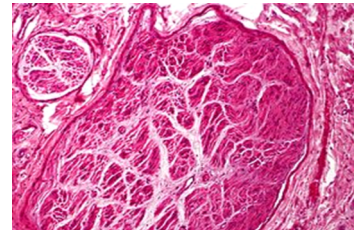


Patient was admitted to kempgowda institute of medical sciences under department of orthopaedics. Patient was examined clinically and routine pre-operative investigation was done. Consent for surgery was taken . Patient underwent excision of swelling under wrist block. Specimen was sent for histopathology. Postoperative period was uneventful.



Histopathology report showed Gross appearance was single grey white tissue piece measuring 4*1.5*1cm. Cut surface is grey white.

Microscopic appearance was Lesion composed of haphazardly and irregularly arranged fascicles embedded in a fibrous scar tissue. Fibrocollagen stroma shows few blood vessels and occasional scattered mast cells. Patient was diagnosed with traumatic neuroma of right thumb.



DISCUSSION

The painful neuroma is an often debilitating sequel of nerve injury about the hand. The exact pathophysiology of this condition is poorly understood. After sharp trauma to a peripheral nerve, as nerve ends try to connect with their end organs and "find" the distal nerve stump, fascicular escape and scarring can lead to the development of a painful neuroma (4)

Kim J. Burchiel M.D et al studied 42 cases which were followed up for an average of 11 months in which 18 patients were grouped under patients had distal sensory neuromas treated by excision of the neuroma and reimplantation of the proximal nerve into muscle or bone marrow. In that 44% had pain relief assessed using visual analog score. He concluded neuroma excision, neurectomy, and nerve release for injury-related pain of peripheral nerve origin yield substantial subjective improvement in a minority of patients; external neurolysis of proximal mixed nerves is ineffective in relieving pain; surgically proving the existence of a neuroma with confirmed excision may be preferable, traumatic neuroma pain is only partly due to a peripheral source.(5)

CONCLUSION

even minor trauma can cause nerve lesions with severe pain. Our study emphasize the importance of careful clinical examinations in diagnosis of painful nerve lesions, and in achieving palliation by

surgical means and followup.

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