

CASE REPORT

Acute Carpal Tunnel Compression Due to Spontaneous Bleeding in a Patient on Anticoagulant Therapy

Vipin Barthwal¹, PS Bhandari²

Introduction

Spontaneous bleeding is a known complication of anticoagulant therapy when the international normalized ratio (INR) is inappropriately high. There are very few reports¹ of acute carpal tunnel compression caused by a hematoma in a patient receiving long term anticoagulant therapy. We recommend an early decompression if patient's symptoms do not improve after watchful waiting.

Case Report

A 46 years lady presented with acute pain and swelling in non-dominant hand of 3 days duration along with bruises over both arms. Symptoms begun while grinding spices in a mechanical hand grinder. She had undergone aortic valve replacement about 8 months back and had been on oral anticoagulants (warfarin) since then.

Examination revealed swelling in the distal forearm and hand with wrist and fingers in flexed position. Radial pulse was palpable with normal capillary refill in the fingers. Sensations were altered along the median nerve distribution. There was an acute tenderness over the wrist. Passive stretching of fingers induced pain. Her INR recorded between 5.7 and 7.7.

MRI of the wrist revealed fluid around the long flexor tendons and median nerve at the carpal tunnel level (Fig 1). Neurodiagnostic studies (Fig 2) marked the median nerve compression at the wrist level.

Warfarin was stopped and patient administered low molecular weight heparin. Mild compressive dressings were applied and limb kept elevated. After 4 days when INR decreased to 1.5, patient was subjected to

carpal tunnel decompression under regional block anaesthesia. At surgery median nerve was oedematous and hyperaemic. Haematoma located within the flexor tendon sheaths was evacuated. Compression dressings were applied with limb in elevated position. On the



Fig. 1 MRI showing fluid along flexor tendon sheaths

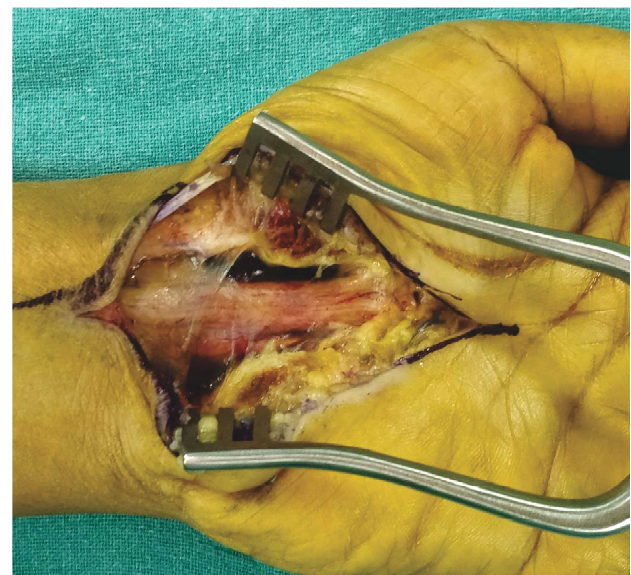


Fig 2 Decompression of carpal tunnel and evacuation of hematoma

✉ Vipin Barthwal
vipinbarthwal@gmail.com

¹ Plastic Surgeon, Max Superspeciality Hospital, Dehradun, India

² Brachial plexus and Peripheral nerve surgeon, Brijljal Superspeciality hospital, Haldwani, Nainital, India

first postoperative day patient experienced significant pain relief with return of sensations in the median nerve distribution.

Discussion

Spontaneous bleeding is a known complication of anticoagulant therapy and has been commonly reported in various organ systems² like skin, brain, kidney, colon, rectus sheath³ etc. Presentations have been ranged from mild bruising to frank haematuria and haematemesis.

Spontaneous haematoma leading to carpal tunnel compression is a rare complication of anticoagulant therapy. This patient had been taking warfarin for a cardiac ailment and developed symptoms mimicking carpal tunnel syndrome. Surgical decompression brought dramatic symptomatic relief.

References

1. Black PRM, Flowers MJ, Saleh M. Acute carpal tunnel syndrome as a complication of oral anticoagulant therapy. *Jr Hand Surg (Br)*.1997;22: 50-51
2. Levine MN, Raskob G, Landefeld S, et al. Hemorrhagic complications of anticoagulant therapy. *Chest*. 2001;119:108-121
3. Alla VM, Karnam SM, Kaushik M. Spontaneous rectus sheath hematoma. *West J Emerg Med*. 2010;11(1):76-79