International Journal of Research in Medical Science
www.medicalpaper.net
Online ISSN: 2664-8741; Print ISSN: 2664-8733
Received: 06-10-2019; Accepted: 07-11-2019; Published: 14-12-2019
Volume 1; Issue 2; 2019; Page No. 26-27

A case report of traumatic hand Injury and Disability

Navin Kumar Devaraj
Department of Family Medicine, Faculty of Medicine and Health Sciences, Universiti Putra, Malaysia

Abstract
This case report is about a woman with a long-term disability due to an industrial accident. This will be followed by an interesting discussion about the underlying condition.

Keywords: disability; hand injury; industrial accident

Introduction

A 40-years-old woman came to medical camp complaining of back pain. Upon general inspection, an abnormal finding was noted over her right hand (Figure 1, 2). Scars was also noted over the dorsal region of the same extremity. She notes that she had injury of her right hand due to a serious accident at the factory that she works at 10 years ago.

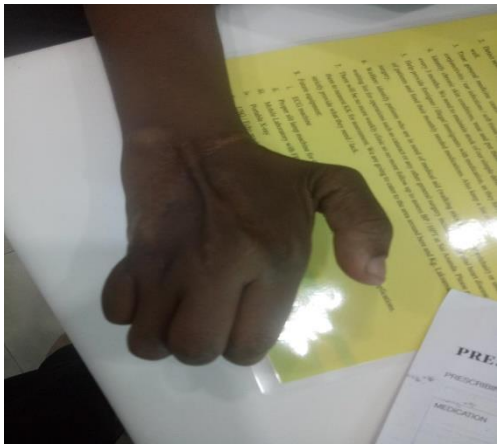

Fig 1

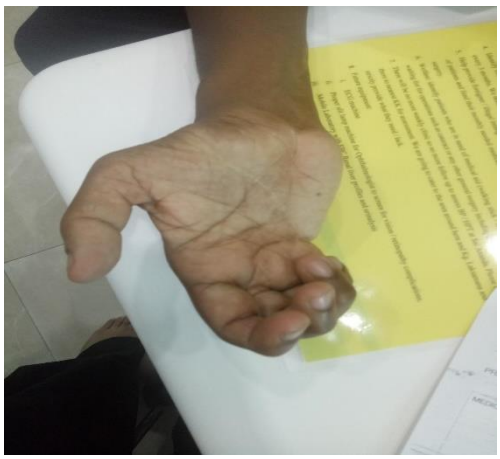

Fig 2

What is the diagnosis?

Answer: Dupuytren contracture of right hand secondary to traumatic hand injury

Dupuytren contracture essentially is a benign fibro proliferative disorder involving progressive shortening and thickening of the palmar fascia. [1] It can lead to permanent contractures of the fingers, in particular involving the metacarpophalangeal (MCP) joints or proximal inter phalangeal (PIP) joints [1]. Medical students can relate to it as one of the stigmata of chronic liner diseases in certain cases. It was recognised as early as 1833 [2].

Most common digit affected are the ring and little fingers. Common associated conditions include diabetes mellitus, alcoholism, epilepsy, trauma, HIV infection, cigarettes smoking and manual labour vibratory exposure, older age of more than 50 years as well as genetic susceptibility as it occurs mainly in Caucasian and sporadically in other races [1, 2, 3].

A full medical history is important to reach the diagnosis. This includes asking for common symptoms associated with this condition, including reduced range of motion, functional disability and getting hand trapped in pockets one too often. [1,2]

Physical examination will usually reveal presences of PIP and MCP joint contractures, tender or non-tender firm nodules, non-tender cords proximal to the nodules, skin blanching upon finger extension or tender knuckle pads over the dorsal region of the PIPs, which usually suggest a more aggressive disorder [1, 2].

The finger contractures can classified into 3 grade as follow [2]:

Grade 1: A thickened band and nodule in the palmar aponeuresis, sometimes associated with skin puckering

Grade 2: Grade 1 findings plus limitation of extension

Grade 3: Grade 2 findings plus with a flexion contracture

Treatment for those with functional impairment will usually entail surgery, with excision of the fascia [3]. However, for those without functional impairment or much pain, treatment is usually more conservative. This includes methods such as physical and occupational therapy, radiotherapy, corticosteroids injection, botulinum toxin injection and hyperbaric oxygen therapy among others. Surgery if undertake, includes open or closed fasciotomy, segmental fasciotomy or various kind of fasciectomy (regional,

selective, extensive, dermofasciectomy) [1]. Following surgery, rehabilitation will be an essential component often required to improve the clinical outcome. This will be in term of gradually increasing range of motion and reduction of splinting. Post-surgery, return to normal activity is anticipated in about 8 to 12 weeks.

Acknowledgement
The author would like to thank the patient for her kind permission in publishing of this images.

References

1. Shaw RB, Chong AKS, Zhang A, Hentz VR, Chang J. Dupuytren's Disease: History, Diagnosis, and Treatment. Plastic and Reconstructive Surgery. 2007; 120(3):44e-54e.
2. Hart MG, Hopper G. Clinical association of Dupuytren's disease. Postgrad Med J. 2005; 81:425-8.
3. Balakrishnan C, Sugg KB, Huettner W, Jarrahnejad P. Dupuytren's contracture following burn injury of the hand: a case report and review of literature. Can J Plast Surg. 2008; 16(1):49-51.