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Case Report

PENTAZOCINE INDUCED FIBROMYOSITIS: MIMICKING AS FACIOSAPULOHUMERAL DYSTROPHY: A CASE REPORT AND REVIEW

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Complications of parenteral narcotic abuse such as localized sclerosis of skin and subcutaneous tissue, indurations and nonseptic ulcerations were well documented, but fibromyositis is very rare. We are reporting an interesting case of pentazocine induced fibromyositis which presented as scapulohumeral and facial muscle weakness mimicking as FSHD. Interesting aspect of this case, which has not been frequently observed, is the involvement of muscle groups which were not injected with pentazocine. This case highlights the care that needs to be taken when prescribing opioid analgesics, such as pentazocine, as routine painkillers.

Keywords: Pentazocine-Fascioscapulohumeral dystrophy (FSHD) - Urinary Tract Infection-Complications

INTRODUCTION

Pentazocine, a synthetic narcotic analgesic, is commonly used for the relief of moderate to severe pain secondary to various conditions. Various complications associated with its use, including skin fibrosis, ulceration, pigmentation and symmetrical myopathy have been previously reported. We are reporting an interesting case of pentazocine induced fibromyositis which presented as scapulohumeral and facial muscle weakness mimicking as facioscapulohumeral dystrophy.

CASE HISTORY

A 30 years old male, medical shopkeeper, presented with weakness and restriction of movement for past 1 year. Complaints started in left upper limb in the form of restricted movement, weakness and wasting, especially around shoulder joint and after 3-4 months involves right upper limb. Slight weakness and wasting in proximal muscles of lower limb and facial muscles were also present. He could not open his mouth properly, blow up balloons and had incomplete closure of eyes while sleeping. He was using pentazocine injection 30mg i.m. daily once or twice for last 5-6 years, in a dependent fashion, initially prescribed for urinary tract infection (UTI). Even after he got relieved of urinary symptoms he continued to use pentazocine

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injection. He got pentazocine injections in deltoids, biceps brachii, glutei and quadriceps almost daily once or twice, by paramedical staff or himself. He developed craving for pentazocine. He was also used to take tobacco intermittently for last 10 years. His elder brother was examined and family history was negative for similar type of illness.

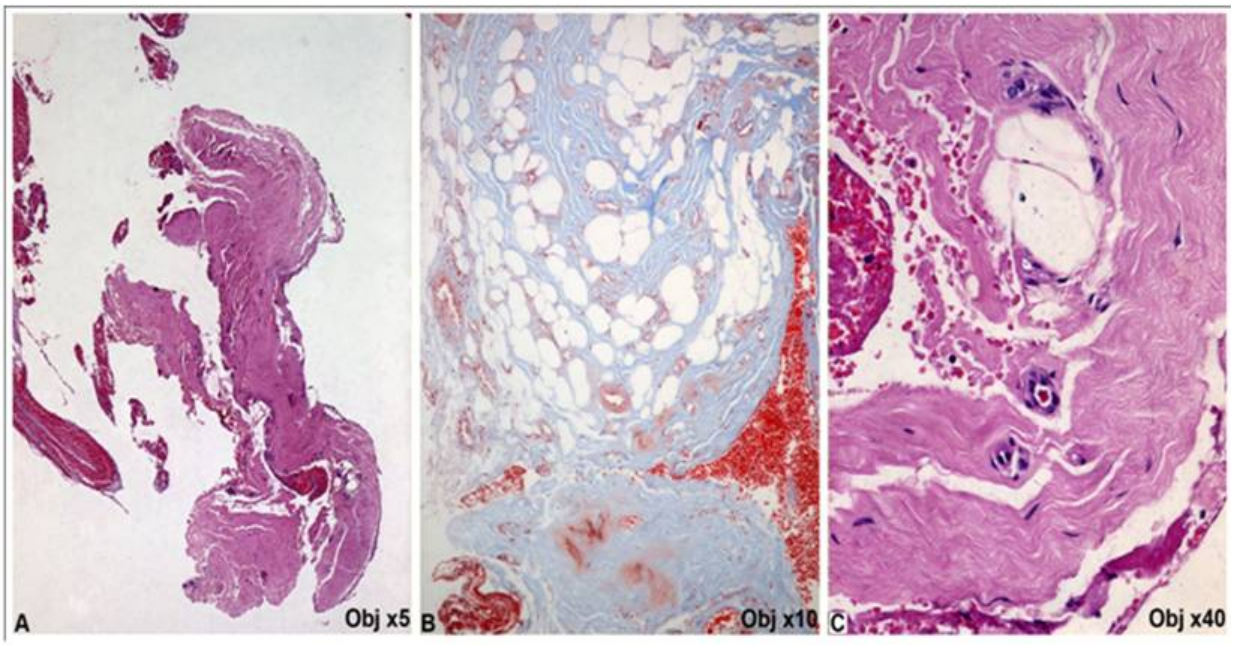
On examination his vitals were stable. General physical examination revealed multiple injection marks over arms, hips and thighs. He could not whistle or blow properly with restriction of mouth opening. He kept his both upper limbs in slightly abducted position and failed to join them in midline. There was asymmetrical winging of scapula more on right along with wasting and hardening of both deltoids were noted (Figure1). Some hardening was also noted in both quadriceps muscles. He could not adduct his shoulders because of fixed contracture of deltoid muscles. He could not abduct his left arm beyond 90° and legs beyond 45°. Both elbows could not be extended fully, limited by 15°-20° terminally. His hip adduction was limited by 10°-15° terminally. He was unable to cross his legs, squat and touch his back. Muscle power testing revealed MRC grade 4/5 around shoulder joint on right side and grade 3/5 on left side and 4/5 around elbow bilaterally. Examination of the rest of the nervous and other systems was normal.

His routine hemogram (Hb-12.3gm/dl, TLC-6300/mm, DLC-N65 L35), including liver and renal function tests, serum calcium, phosphate, and creatinine phosphokinase (CPK-92 IU/dl) were normal. Electromyography (EMG) showed electrical silence over both deltoids. Muscle biopsy showed fibro fatty tissue with moderate number of blood vessels of varying caliber and mild to moderate perivascular inflammation (Figures 2A, 2B and 2C). The findings were compatible with fibromyositis.

Diagnosis and prognosis were explained to the patient. He was given drug rehabilitation treatment and vigorous physiotherapy with passive and active stretching exercises. At 4 months follow-up he had very mild improvement of weakness and stiffness.

Figure 1: Showing Asymmetrical Winging of Scapula and Wasting of Deltoid Muscles

Figure 2A: Low magnification view showing dense collagen entrapping a few vessels and masses of fibrin (HE, objective X 5); 2B: Low power view showing entrapped adipose tissue and fibrous tissue replacing muscle. (Masson's trichrome Objective X 10); 2C: Higher magnification showing entrapped small arterioles with sparce inflammation around representing fibromyositis (HE objective X 40)



DISCUSSION

Complications of parenteral narcotic abuse have been well documented (Schlicher, 1971), barring fibromyositis (Steiner, 1973; and Joong, 1975). The case presented with features that closely mimicked Facioscapulohumeral muscle dystrophy because of prominent upper limb asymmetrical pure motor weakness with amyotrophy, winging of scapula with facial atrophy and weakness. But on detailed examination woody indurated muscles, multiple injection marks, multiple site contractures and prominent deltoid involvement suggested the other diagnosis. On repeated questioning he accepted pentazocine addiction which was confirmed by his brother. Facial involvement can be explained by distant non injected muscle affection (Goyal and Chawla 2008) and due to tobacco chewing addiction.

Schlicher *et al*. (1971) first described the cutaneous complications of pentazocine injections and noted a 33% incidence of brawny indurations of skin and underlying tissues (Schlicher, 1971). Steiner *et al.* (1973) and Joong *et al*. (1975) described fibrous myopathy with intramuscular pentazocine injections, with their patients presenting with woody indurations of muscles with secondary contractures. Deltoid contracture causes a fixed abducted posture, aptly termed 'arm levitation sign', a signal of chronic injection myopathy (Levine, 1975). The main histopathologic change is extensive fibrosis in skin and muscle with nonspecific endarteritis, vascular thrombosis, granulomatous inflamma-

tion and fat necrosis. The mechanism of this condition remains unclear. Pentazocine is acidic (4.3) in nature and precipitation in the alkaline pH of extracellular tissue with secondary inflammation has been postulated (Schlicher *et al*., 1971). Abuse of opioids prescription like pentazocine is on rise in India (Ray, 1998) and other parts of the world. With free access to these drugs in India and many developing countries, awareness of this complication is important so that unwanted side effects can be avoided.

CONCLUSION

This case highlights the significance of care taken while prescribing opioid analgesics, such as pentazocine, as routine painkillers. In any form of atypical myopathy drug history should be taken properly especially of injectable opioids analgesic like pentazocine.

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