ABSTRACT
Dermatitis artefacta although a very well known entity can be misdiagnosed if not thoroughly observed. We present a case of dermatitis artefacta in a medical student cleverly manipulated by her knowledge of medicine leading to diagnostic delay by the dermatologists.

KEY WORDS: Dermatitis artefacta, medical student, pentazocine.

INTRODUCTION: Dermatitis artefacta (DA) is a factitious skin disease included under primary psychiatric skin disorder. Patient is in fully aware condition having deliberate self injurious behaviour and produces cutaneous lesions in order to assume a sick role.\[1,2\] The patients or their family members are more commonly associated with health related careers.\[3,4\] Majority of patients have borderline personality disorders\[1\] and may be neurotic or depressed or have poor impulse control. Patients are mostly females and give misleading history of evolution and progression of lesions and typically denies any role in production of lesions.\[5\] The lesions are often on normal appearing skin and in easily accessible areas. Dermal induration and punched necrotic...
areas or non-healing infected wounds mimicking vasculitic lesions are common with injections or chemical burns.[6] We are reporting a case of dermatitis artefacta in a medical student caused by self injection of pentazocine intradermally initially misdiagnosed as a case of cutaneous polyarteritis nodosa.

CASE REPORT
A twenty four years old female presented to the outpatient department of dermatology with complaints of painful ulcers on bilateral thighs since 2 years. According to her the lesions started as indurated painful plaques progressing to infarcts and gradually leading to ulceration. This was associated with episodes of palpitation and loss of consciousness, joint pain, fever and dyspnoea. With these complaints she was being treated by various dermatologists with low dose oral steroids without any improvement.

On clinical examination, there were tender indurated plaques with areas of infarcts and ulcers (Figure 1) on anterolateral aspect of bilateral thighs with complete sparing of posterior aspect of thighs and other areas of the body. The tenderness was disproportionately less to the size and aggressiveness of the lesions. On systemic examination, no clinical abnormality was detected. All her routine laboratory investigations including haematological, urine, chest x-ray, ultrasonography of abdomen and pelvis, electrocardiogram, electroencephalogram and contrast tomography of brain and thorax were within normal limits. Only serum p-ANCA & c-ANCA were positive. Histopathological examination of the skin showed features overlapping with that of vasculitis and panniculitis.

Figure 1. Indurated plaques with areas of infarcts and ulcers on anterolateral aspect of left thigh.
So, in view of positive ANCA and histopathological findings, a differential diagnosis of cutaneous polyarteritis nodosa was made and she was started on high dose intravenous dexamethasone (100mg) and cyclophosphamide (500mg) monthly pulse therapy. In between she was advised daily dose of oral cyclosporine. Oral steroids and NSAIDS were prescribed on and off for complaints of severe pain and appearance of new lesions. With this treatment she showed improvement of the existing lesions initially, but kept on presenting with new erythematous, painful noduloulcerative lesions on the immediate surrounding areas. Gradually she developed deep extension and coalescence of the ulcers on right thigh (Figure 2) with fowl smelling seropurulent discharge and necrotic debris, which was diagnosed to be secondary Methicillin Resistant Staphylococcus aureus (MRSA) infection based on culture and sensitivity report and was treated with intravenous antibiotics accordingly.

Figure 2. Large deep ulcer with necrotic slough following coalescence of multiple ulcers secondary to MRSA infection on right thigh.

For the deep ulcers extending to the fat and muscle, she was referred to the plastic surgery department, where a wide debridement of the ulcer along with skin grafting was done (Figure 3). Post operative she kept on complaining of severe pain on the operated site inspite of intravenous analgesics, along with impaired sleep and restlessness. For this finally epidural analgesia with bupivacaine was given. Post epidural analgesia also she complained of persistent pain which was unusual and hinted at the possibility of a drug withdrawal. Her husband was interrogated in detail, where he gave the history of seeing pentazocine ampoules in house on & off, but never questioned his wife as she was a medical student.
Finally the patient was referred to the psychiatrist, where after much counselling she accepted self injecting intradermal pentazocine frequently for unbearable pain. She was initiated on diazepam for sedation along with regular counselling. She met the criteria for major depressive disorder (MDD) with somatic symptoms. (DSM-IVTR) She had poor scholastic performance. For her MDD she was started on dothiepin and naltrexone was added to reduce her craving. After six weeks of therapy she had improved activities of daily living (ADL), social interaction and increased interest in studies and other pleasurable activities. Also the craving for pentazocine subsided. With topical antibiotics & regular dressing her skin lesions healed with scarring (Figure 4).
DISCUSSION

Dermatitis artefacta is a factitial dermatitis with intentional feigning of physical signs by self-harming behaviour. The patient produces cutaneous lesions in order to fulfil an unconscious psychological need to assume the sick role \cite{maitreyee1,maitreyee2} and they typically deny any role in the production of lesions. External incentives for the behaviour (such as economic gain, avoiding legal responsibility etc.) are absent.

Onset in majority is during adolescence or in adults < 30 years of age with female predominance.\cite{maitreyee7,maitreyee8} The pathophysiology of DA is not clearly understood with a complex interplay of genetics, psychosocial factors and personal history of psychiatric illness.\cite{maitreyee7,maitreyee8} The primary underlying psychiatric condition may be personality disorder, depression, neurosis or poor impulse control.\cite{maitreyee3}

The two characteristics of DA are the physical signs and the fabrication. The most common sites of involvement are face, upper trunk and extensor extremities.\cite{maitreyee8} The lesions tend to be on normal skin. The shape of the lesions may be bizarre, geometric, angulated, necrotic or appear as linear streaks. Intradermal injections produce induration, necrotic ulcers or non-healing infected wounds \cite{maitreyee6} and characteristically the deep ulcers are relatively less painful compared to their severity. The most common differential diagnosis is necrotizing vasculitis. Others include bullous skin disease, pyoderma gangrenosum, other types of vasculitis, collagen vascular disease and infestations.\cite{maitreyee1,maitreyee4}

Management of DA includes building a mutual trust and rapport between patient and doctor through gentle and non-confrontational behaviour. Intensive psychotherapy may be needed in severe cases. But all patients should be carefully evaluated to identify any underlying organic disease as highlighted by Cox and Wilkinson.\cite{maitreyee9}

Evidence of significant psychiatric disturbance has been found in 10% of medical students,\cite{maitreyee10} but seeking medical advice is delayed as there is a fear that, if somebody admits to a weakness, there will be an impact on their ability to safely practice medicine. Dermatitis artefacta although reported to be more common in health care workers and their families,\cite{maitreyee3,maitreyee4} recent studies do not suggest the same.\cite{maitreyee7,maitreyee8} So, our case is unique being a medical student how she fabricated the information using the scientific knowledge, which prompted the dermatologists to misdiagnose the condition. A thorough history taking definitely forms the cornerstone of diagnosis of this relatively rare condition.
REFERENCES