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Case Report

Microbiology Section

Morganella Morganii Causing Abscess Over the Anterior Chest Wall- A Case Report

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ABSTRACT

A 17-year-old female college student presented with recurrent abscess over the anterior chest wall since one and half year. *Morganella morganii* was isolated from the aspirated pus. Patient was started on oral ciprofloxacin and the lesion resolved in two weeks.

Keywords: Anterior chest wall, Ciprofloxacin, *Enterobacteriaceae*, *Morganella morganii*

CASE REPORT

A 17-year-old female college student presented in October 2012 with recurrent abscess over the anterior chest wall since one year.

Past history revealed an injury, by metallic hook of the undergarment one month prior to the swelling. It was associated with severe pain, fever, myalgia and the patient used to be bed-ridden during these days. The abscess was drained (at an outside clinic) but culture was not done. Patient was advised to take oral antibiotic linezolid 600mg, twice daily for one week. Patient was relieved of her symptoms but the abscess reappeared at the same site after about six months. The abscess was drained and advised another course of oral antibiotics. The painful swelling reappeared after six months. This is the time when the patient visited our hospital.

Local Examination: Black coloured, non itchy, non discharging swelling measuring about 1.5 x 1.5 cm, present over the anterior chest wall, soft and tender on palpitation.
Chest X-ray showed no bony involvement. Routine blood investigations were normal.

Frank pus was aspirated under aseptic precautions and sent to the Microbiology department for investigation.

Microbiological investigation: The case was referred from the Surgery OPD to Department of Microbiology, AIMS, B.G. Nagara, Karnataka.
Macroscopically thick pus with no blood, Gram stain showed plenty of pus cells and few gram negative bacilli. Pus was inoculated onto MacConkey's agar, blood agar and chocolate agar.

Non-lactose fermenting colonies were isolated and identified by standard methods as *Morganella morganii*. Further confirmation was done by using Vitek automated system biomerieux ID card.

Antibiogram by Kirby-Bauer disc diffusion method showed susceptibility to ciprofloxacin (10µg), ceftriaxone (30µg), levofloxacin (5µg), ceftazidime (30µg), imepenem (10µg), meropenem (10µg), tetracycline (30µg), gentamycin (10µg) and aztreonam (30µg). Patient was started on oral ciprofloxacin and the lesion resolved in two weeks. Patient was followed for six months. There was no recurrence.

DISCUSSION

Morganella morganii is a gram negative bacilli belonging to the family *Enterobacteriaceae* [1]. It was first described in late 1930s as a pathogen of urinary infections [2]. It is found in the environment and as commensals in the intestines of human beings [3]. However, it can cause urinary tract infections, bacteremia, skin and soft tissue infections, meningitis, ecthyma gangrenosum, spontaneous bacterial peritonitis, Chorio-amnionitis, septic arthritis and endophthalmits. It is a rare cause of abscess formation.

In the present case, the external injury caused by a metallic hook of the undergarment may be the source of infection. Falagas ME et al., has isolated *M. morganii* from 24 patients, of which 54% were from skin and soft tissue infections [1]. Jong Hoon et al., study showed *M. morganii* is known to cause opportunistic infection, especially in immune-compromised host [4]. Majority of *M. morganii* infections are related to post-operative wound and urinary tract infection. McDermott C et al., reported that risk factors for *M. morganii* were old age, the presence of concomitant bacteremia, hospitalization, recent surgery and concurrent antibiotic use [5]. There are reports of *M. morganii* causing infection of hydatid cyst of liver, neonatal sepsis, empyema, cerebral abscess and neck abscess [2,3,6,7].

We report this case to create the awareness among clinicians and microbiologists that *Morganella morganii*, even though uncommon, is a cause of soft tissue infection, as it may have a slow insidious onset, with minimal characteristic signs and symptoms, a high index of suspicion is required.

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