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CASE REPORT

# A Case Report on Clindamycin Induced Pain and Swelling Over Right Limb

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## ABSTRACT

Clindamycin is a lincosamide antibiotic that inhibits bacterial protein synthesis. It is approved for the treatment of anaerobic, streptococcal, and staphylococcal infections. Adverse effects of clindamycin include diarrhea, pseudomembranous colitis, metallic taste in the mouth, transient elevations in liver transaminases, granulocytopenia, and thrombocytopenia. A 33-year-old female with cervicitis was hospitalized in the obstetrics and gynecology department of a tertiary care teaching hospital. Inj. Clindamycin (600mg/4mL) was administered to the patient on 18/1/2020, and then the patient developed pain and swelling over the right limb. Clindamycin was withdrawn. Meanwhile, the patient was administered Inj. Avil 2 mL (Pheniramine Maleate) IV stat, Inj. Hydrocort (Hydrocortisone) IV stat and 100ml IV infusion Normal Saline was given as treatment. Pain and swelling of the right limb are a rare presentation of adverse drug reaction produced by clindamycin.


**Keywords**: Adverse drug reactions**,** Clindamycin, Hypersensitivity reactions, Pain, Swelling

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## INTRODUCTION

Clindamycin is a lincosamide antibiotic that restrains bacterial protein union. It is endorsed to treat anaerobic, streptococcal, and staphylococcal combinations. It was found that clindamycin shows a prompt clinical and bacteriologic response and excellent tissue and bone penetration. Thus, there is increasing use of clindamycin in clinical practice to treat infections.[1] By disrupting the bacterial protein synthesis. Clindamycin causes changes in the cell wall surface, decreasing the adherence of bacteria to host cells and increasing the intracellular killing of organisms.[2] Adverse effects of clindamycin include diarrhea, pseudomembranous colitis, metallic taste in the mouth, transient elevations in liver transaminases, granulocytopenia and thrombocytopenia. Hypersensitivity reactions have decreased in frequency and are relatively uncommon.[3] Hypersensitivity reaction with clindamycin may be immediate or delayed-type, but their frequency and severity are relatively rare.[4] Here, we present a case of clindamycin–induced pain and swelling over the right limb.

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## CASE REPORT

A 33-year-old female with cervicitis was hospitalized in the obstetrics and gynecology department of tertiary care teaching hospital. Inj.Clindamycin (600 mg/4 mL) was administered to the patient on 18/1/2020, and then the patient developed pain and swelling over the right limb. Clindamycin was withdrawn. Her vitals were BP; 110/70 mm Hg, PR: 82 bpm, Temp: Afebrile, and respiration rate 16 cpm. It was diagnosed as susceptible to adverse drug reaction with clindamycin and requested the Pharmacovigilance Committee, Department of Pharmacy Practice for further reference; meanwhile, the patient was administered. Inj. Avil 2 mL (Pheniramine Maleate) IV stat, Inj. Hydrocort (Hydrocortisone) IV stat and 100 mL IV infusion Normal Saline was given as treatment. There was no personal history of atopy or allergy to any other substances. Complete blood count and thyroid test values were within normal limits throughout her pregnancy and also postpartum. Then the patient recovered from an adverse drug reaction and asked for follow-up after one week. Her concomitant medications included Pantoprazole 40 mg, Inj. Gentamicin 40 mg/mL and Inj. Sumol 1g IV. The Pharmacovigilance Committee members critically analyzed the case, evaluated sufficient evidence, and suggested that clindamycin induced pain and swelling over the right limb. The consent form from the patient was taken for the publication of the data as a case report.

### Causality Assessment

To evaluate the relationship between the drug and reaction, we have performed causality assessment by using Naranjo's scale and obtained a score of 07 showing probable ADR.[5]

## DISCUSSION

Clindamycin is an antibiotic used in anaerobic and severely complicated infections. It is often selected for

patients with a history of allergy to other antibiotics. Despite the expanded use of clindamycin in bone infections, the adverse reactions of this antibiotic are minor.

Norden *et al*. conducted a study in which clindamycin was used alone to treat experimental osteomyelitis due to Staphylococcus aureus in rabbits. Treatment failed in the four-week treatment group, which showed resistance to clindamycin. The results of four weeks of treatment with clindamycin for chronic experimental staphylococcal osteomyelitis were significantly better than those obtained with any other single agent used in prior studies. They were generally as good as those with combination therapy that included rifampin.[6]

Alikhani *et al.* reported a case of a 75-year-old male patient with a history of drop attack and subdural hematoma who developed skull osteomyelitis after the surgery. After two weeks of intravenous antibiotic therapy, wound discharge was stopped, and the patient was discharged from the hospital with the maintenance of oral antibiotic therapy, including clindamycin 300 mg q8 h, ciprofloxacin 500 mg q12 h and rifampin 600 mg fasting Six days after the beginning of oral antibiotics, right wrist monoarthritis was developed. It was unresponsive to nonsteroidal anti-inflammatory drugs and improved after decreased doses of clindamycin. The study concluded that monoarthritis should be considered a rare adverse effect of clindamycin and could be managed with a dose-reduction strategy.[2]

In one report from FDA and community, 6, 211 people who took clindamycin Hcl and had side effects were studied. Common side effects, effectiveness and long-term effects of the drug were included in this assay. Multiple side effects were reported in it and there was no articular adverse effect.[7]

Smeets *et al*. carried out a review study that describes five further ADR cases of clindamycin-induced acute generalized exanthematous pustulosis (AGEP). In all cases the patients recovered without reported sequelae after withdrawal of clindamycin. In addition, all the described cases met the criteria for full recovery of AGEP within 15 days.[8]

## CONCLUSION

The pain and swelling over the right limb in our patient were probably induced by clindamycin, as validated using Naranjo probability scale with a score of 07. Although the pain and swelling over the right limbare a rare adverse effect of clindamycin and other lincosamide antibiotics, clinicians should be aware of the possibility of such an occurrence and should be well known about the treatments to resolve the problems if an adverse reaction occurs. In this case, the patient was immediately administered Inj. Avil 2ml(Pheniramine Maleate) IV stat, Inj. Hydrocort (Hydrocortisone) IV stat and 100ml IV infusion Normal Saline was given as rescue treatment. Further, the patient was followed up for her condition and recovered; she was also advised to inform the clinicians about the reaction before future treatments.

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## ABBREVIATIONS

1. Inj. – Injection
2. IV – Intravenous

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