

Case Report**A Case discussion on Implant failure and Chronic Osteomyelitis of Distal Femur**C.Reshma*, S. Aravindh*, S. Shahina¹

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Abstract:

Osteomyelitis is an infection of bone this infection in one part of the body may spread through the bloodstream into the bones. So, this condition is serious but rare. The indications of these conditions include fever, irritability, tenderness, redness, and warmth in the area of infection. Osteomyelitis is commonly caused due to adjacent infections, contamination. Open fracture or surgery may expose the bone to infect usually this condition should treat with medical procedures that include draining the infected area, removing the diseased bone and tissue, remove any foreign particles, restore blood flow to the bone, amputate the limb .medications to be given for this condition are penicillin antibiotics or aminoglycosides in combination with nitroimidazoles which helps to inhibit bacterial growth and also to disrupt the DNA of microbial cells, anti-inflammatory, analgesics, antipyretics, proton pump inhibitors should give as adjuvant therapy.

Keywords: *Open Fracture Surgery, Implant Failure, Contamination, Amputate the limb.*

Introduction:

Osteomyelitis is a bone infection that gets infected through the blood or infected tissue. This condition may also cause due to an injury like an open fracture to the bone where the bone gets infected. osteomyelitis usually affects long bones of the body such as legs and upper arms whereas in adults these conditions mainly affect the spine.

Clinical findings of these conditions include fever, chills, swelling, and redness at the site of infection, increased or elevated temperature in the area of infection, in the case of children there will be fatigue and irritability.

Risk factors for osteomyelitis include diabetics, recent surgical procedures of the bone where there is a high risk of contamination, circulation disorders, chemotherapy, chronic use of corticosteroids.

Treatment for these conditions include medical procedures like draining the infected wounds, amputation of the limb when it is severed and pharmacological therapy includes Penicillin Antibiotics or aminoglycosides in combination with Nitroimidazoles and Anti-inflammatory, Analgesics, Antipyretics, Proton Pump Inhibitors, Vitamin supplements as adjuvant therapy may help the patient for early recovery.

Case Report:

A 52 years male patient presented with chief complaints of pain, discharge, local rise in temperature over the left thigh, on and off episodes of fever for 2 months. It is a known case of diabetics for 10 years, Hypertension, and Thyroid for 3 years and he is on medication with Human Insulin, Thyroxin sodium, and Amlodipine. And it was a case with a history of surgery for left femur 2 years back and implant removal was done 5 months ago from the day of admission. As it was an open fracture and implant removal surgery was done the patient had a risk of contamination and a chance to get osteomyelitis.

Three months after the implant removal surgery patient experienced pain, swelling, local rise in temperature, foul-smelling fluid discharge from the sight of surgery, and relapsing fever also observed. Patients consult Orthopedetion after 2 months of experiencing these complaints and the case was diagnosed as “2 years old implant failure with osteomyelitis of left femur” based on x-ray and lab investigations.

On clinical laboratory findings, the patients have decreased Haemoglobin levels(6.8gms/dl) and increased random blood sugar levels (304mg/dl), abnormal thyroid profile and other investigations like differential count and pathological findings, liver function test resulted as normal.

The initial stage of this infection can be treatable with Penicillin Antibiotics or Aminoglycosides and draining procedures but these were a sever condition with many complications like Diabetics, Hypertension, and thyroid.

The physician advice for amputation of the left leg due to severe osteomyelitis, as the patient was with lower haemoglobin he advises for blood transfusion of two packs on the third day of admission and after all the risk assessment checks for surgery, the patient was prepared for operation with the orders include NBM for 10 hours, injection T.T ½ cc was given before the surgery, xylocaine test dose was given, preparation of parts to be done and undergone for amputation with lower risk.

After surgery, the patient was treated with aminoglycosides with Nitroimidazoles and Anti-

inflammatory, Analgesics, Proton pump inhibitors, Antipyretics, vitamin supplements are given as adjuvant therapy.

Management:

S.no	Brand	Generic	Category	Dose	Route	Frequency	Start – stop
1.	Injection. Amikacin	Amikacin	Aminoglycoside	500mg	I.V	b.i.d	1-7 th day
2.	Injection. Metrogyl	Metronidazole	Nitroimidazoles	100ml	I.V	t.i.d	1-7 th day
3.	Injection. Pantop	Pantoprazole	PPI	40mg	I.V	O.d	1-8 th day
4.	Injection. Diclo	Diclofenac	Analgesic	75mg	I.M	s.o.s	2-3 rd day
5.	Injection. Mixtard	Human insulin	Hyperglycaemic	35,25u	S.C	b.i.d	1-8 th day
6.	Injection. zostum	Cefoperazone, sulbactam	Cephalosporines	1.5gm	I.V	b.i.d	3-8 th day
7.	Injection. Tramadol	Tramadol	Analgesic	1amp	I.V	b.i.d	3-5 th day
8.	T. Amlog	Amlodipine	Anti-hypertensive	25mg	Oral	O.d	1-8 th day
9.	T. thyroxine	Thyroxin sodium	Hyperthyroid	150mg	Oral	b.i.d	1-8 th day
10.	T.zerodol	Aceclofenac +Paracetamol	Analgesic, Antipyretic	75mg+ 500mg	Oral	b.i.d	S.o.s
11.	T.chymorol forte	Tripsin chymotripsin	Anti-inflammatory	1 tab	Oral	t.i.d	3-8 th day
12.	T. Zincovit	Multi vitamin	Vitamin supplement	1 tab	oral	O.d	3-8 th day

An Aminoglycoside with nitroimidazoles was given for the patient to inhibit the bacterial growth at the site of infection and, anti-inflammatory was given to treat inflammation and to decrease swelling, analgesics are given to decrease the pain, antipyretic was given to treat elevated body temperature, proton pump inhibitors are given to treat stomach acid problems caused due to analgesics and antipyretic, vitamin supplements are given to maintain the nutritional balance of the patient.

The patient was recovered with decreased symptoms so he was discharged on the 9th day with the medications include T. zostum as antibiotics for 5 days, T.zerodol-P as an analgesic for 7 days, and antipyretic, injection. Mixtard as hyperglycaemic agent, T. amlog as antihypertensive and T.thyroxin for thyroid and T.zincovit for one month.



Fig:1-Infected implant



Fig:2- Amputation of left leg

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