

From: "ROOT" <root@sctimst.ac.in>
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Date: 05/12/2024 09:33 AM
Subject: Invitation for CGR (AIIMS Bathinda)_05.12.2024_8AM - 9AM

From: "RRC Rishikesh (rrcrishikesh@aiimsrishikesh.edu.in)" <rrcrishikesh@aiimsrishikesh.edu.in>
To:
Cc: Meenu Singh <meenusingh4@gmail.com>
Date: Wed, 4 Dec 2024 21:04:40 +0530
Subject: [EXTERNAL MAIL] Invitation for CGR (AIIMS Bathinda)_05.12.2024_8AM - 9AM

Greetings from AIIMS, Bathinda !!

Dear All,

This is to inform you that the (Clinical Grand Round) CGR will be conducted as per the following schedule:

Date: 5 December 2024
Time: 8:00 AM to 9:00 AM
Venue: Lecture Hall-1

Looking forward to your cooperation.
CPC/CGR/Statistical Meeting at AIIMS Bathinda
Thursday, December 5 - 8:00 – 9:00am
Time zone: Asia/Kolkata
Google Meet joining info
Video call link: <https://meet.google.com/piz-cmfm-crw>
Or dial: (US) +1 929-277-6058 PIN: 296 601 120#

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Kind Regards
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CLINICAL GRAND ROUNDS
Department of Orthopaedics – 5th DECEMBER 2024

Background: Prosthetic joint infection (PJI) is a severe complication following joint arthroplasty, significantly impacting patient outcomes. We are presenting a detailed case presentation on periprosthetic joint infection. This case is our operated patient, sharing our experience, highlighting a challenging instance of PJI, and detailing its clinical presentation, diagnostic workup, and treatment course. The case underscores the multifaceted nature of PJI management, emphasizing the need for a multidisciplinary approach.

Current literature outlines the rising incidence of PJI, particularly with an aging population and increased arthroplasty volumes. Diagnostic criteria include clinical signs, laboratory markers (elevated CRP and ESR), synovial fluid analysis, and microbiological cultures, supplemented by advanced imaging. Management strategies range from debridement with implant retention to one- or two-stage revision surgeries, tailored to infection chronicity, causative organisms, and patient factors. The emergence of antimicrobial-loaded spacers and novel antibiotics has enhanced outcomes, though challenges persist with resistant pathogens and biofilm-related infections.

This presentation bridges clinical experience with cutting-edge evidence, fostering a deeper understanding of PJI’s complexities and management paradigms.

Name: ABC	Age/Sex: 58/f	Residence: Rampura Phul, Bathinda
• UHID:		
Case Presenter:	Consultant in charge:	
Dr Shivam Maheshwari (Academic SR)	Dr. Tarun Goyal (Professor and HOD) Dr Lakshmana Das (Assistant Professor)	

Chief complaints:

- Pain and draining sinus from left knee X 6 months
- Pain and sense of instability in R knee X 5 months
- Difficulty in weight bearing on bilateral lower limb X 5 months

Brief History:

- Complaints of pain in bilateral knees

- Left knee for 6 months, insidious in onset, gradually progressive, dull aching in character, moderate to severe in intensity, radiating to calf region and difficulty in bearing weight, pain aggravated on ADA.
- H/o active draining sinus since 5 months
- H/o similar symptoms on the right knee since last 5 months
- The patient also complained of instability while walking and climbing stairs.
- **Past surgical history:**
 - She underwent bilateral total knee replacement 1.5 years back elsewhere.
 - In single sitting for primary osteoarthritis knee.
 - Perioperative period was uneventful
 - She remained asymptomatic for around one year post surgery.
 - She is medically fit otherwise with no known comorbidities.
- There is history of prolonged intermittent use of antibiotics (? Broad spectrum) for the management of her symptoms.
- History of prolonged analgesic use.
- No history of aspiration of the knee or any cultures available with the patient.
- There is no history of morning stiffness lasting for more than >30 mins, no multiple joint pain or involvement of other joints.
- No history of night awakening, loss of weight or loss of appetite.
- Personal and social history:
- Patient has no addiction.
- Her bladder and bowel habits are unaffected.
- She is vegetarian by diet and belongs to upper middle-class strata.

Examination

q. GPE:

Patient-oriented to time, place, and person

Higher mental functions intact

Vitals stable

Vitals

- HR - 74 bpm
- BP - 130/70 mm of Hg
- RR - 18/min
- SpO2 - 98% on RA
- Temp- 98.4 F
- **Local examination of bilateral knees:**

Gait: The patient walks with an assisted bipedal gait with a stick on left side. There is an associated antalgic component.

Observation:

Antalgic gait observed, characterized by a limping pattern.

Reduced stride length and difficulty with weight-bearing on both knees.

Stance: Stability was compromised during the stance phase, with noticeable asymmetry.

	Right	Left
Swelling	Suprapatellar and parapatellar fullness present	Suprapatellar and parapatellar fullness present
Skin erythema	Absent	Present around the surgical incision line with hyperpigmentation around the draining sinus
Scar	Healed surgical scar of ~ 12cm	Healed surgical scar of ~ 12cm
Sinus	Absent	present on the distal and lateral aspect of surgical site
Dilated veins	Absent	Absent
Wasting: quadriceps muscles	present ~ 1cm	present ~1.5 cm
Deformity:	No fixed deformity	No fixed deformity

Coronal plane (varus/Valgus)

**Sagittal Plane
(Flexion/recurvatum)**

<u>Palpation</u>	-	-	-
<u>Temperature</u>		<u>No local rise in temperature</u>	<u>Local rise in temperature present</u>
<u>Tenderness at</u>		-	-
1. <u>Medial Joint Line</u>		<u>Tenderness present at medial and lateral joint line</u>	<u>Tenderness on palpation grossly around line</u>
2. <u>Lateral Joint Line</u>			
3. <u>Bony Landmarks</u>			
-			
<u>Knee effusion (Mild/moderate/severe)</u>	<u>mild</u>	<u>moderate to severe</u>	
<u>Synovial hypertrophy</u>	<u>not appreciated</u>	<u>not appreciated</u>	
<u>Patella Tenderness</u>	<u>present</u>	<u>present</u>	

DIFFERENTIAL DIAGNOSIS

POINTS IN FAVOR

POINTS AGAINST

Prosthetic joint infection (SEPTIC LOOSENING)

1. Draining sinus- active
2. Night pain
3. Pain on weight bearing
4. Moderate effusion in the knee
5. Active sinus communicating with joint
6. Hyperpigmentation around the sinus tract
7. Local rise in temperature

Reactive synovitis

Moderate effusion in the knee
Local rise in temperature

No synovial hypertrophy
Active sinus communicating with joint
Hyperpigmentation around sinus tract
No morning stiffness

Superficial SSI

Pain at the surgical site
Active infection at the surgical site
1. Hyperpigmentation around the sinus
2. Local rise in temperature

Active sinus communicating with joint

Allergic or hypersensitivity reaction (non-infective)

Moderate effusion in the knee
Local rise in temperature

1. Active sinus communicating with joi
2. Hyperpigmentation around sinus tra

Aseptic loosening of prosthesis

Moderate effusion in the knee
Can be considered on right side

1. Active sinus communicating with joi
2. Hyperpigmentation around sinus tra
3. Local rise in temperature

Tubercular synovitis

Moderate effusion in the knee
Active sinus communicating with joint
Hyperpigmentation around the sinus tract

No synovial hypertrophy
Local rise in temperature