STANDARD OPERATING PROCEDURE

Diagnosis and Management of Liver Abscess

Special Region (1)

Union of Myanmar

Version: 1.0

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Approved by: Internal Medicine

1. Purpose

To provide a standardized, evidence-based protocol for the diagnosis and management of liver abscess in SR-1 hospitals, ensuring timely treatment, complication prevention, and adaptation to resource-limited settings.

2. Definition

A liver abscess is a localized collection of pus within the liver parenchyma, commonly due to:

- Amoebic infection (Entamoeba histolytica)
- Pyogenic bacterial infection

3. Classification

- Amoebic Liver Abscess (ALA) – Entamoeba histolytica – Endemic regions
- Pyogenic Liver Abscess (PLA) – Bacteria (E. coli, Klebsiella, Streptococcus) – Biliary disease, sepsis
- Fungal (rare) – Candida spp. – Immunocompromised

4. Risk Factors

- Diabetes mellitus
- Alcohol use
- Biliary tract disease (stones, malignancy)
- Intra-abdominal infection
- Immunosuppression (HIV, steroids)

5. Clinical Features

- Fever (most common)
- Right upper quadrant pain
- Hepatomegaly
- Nausea/vomiting
- Weight loss
- Jaundice

6. Red Flag Signs

- Septic shock
- Altered mental status
- Sudden severe abdominal pain (rupture)
- Respiratory distress

7. Diagnostic Approach

Investigations:

- CBC → Leukocytosis
- LFT → ↑ ALP, mild ↑ AST/ALT
- CRP/ESR → Elevated
- Blood culture → Positive in PLA

Imaging:

- Ultrasound (first-line)
- CT Abdomen (complicated cases)

8. Differentiation

Amoebic: Single, right lobe, anchovy paste pus, metronidazole responsive

Pyogenic: Multiple, purulent, blood culture positive

9. Management

General:

- Admit, IV fluids, analgesia, monitoring

Amoebic:

- Metronidazole 800 mg TDS × 7–10 days
- Diloxanide furoate 500 mg TDS × 10 days

Pyogenic:

- IV Ceftriaxone 2 g OD + Metronidazole 500 mg TDS
- Alternative: IV Piperacillin–tazobactam 4.5 g IV 6–8 hourly
- Severe/shock – IV Meropenem 1 g IV 8 hourly
- Add-On Therapy (If Indicated)
- MRSA risk → IV Vancomycin
- Enterococcus → IV Ampicillin / Vancomycin

Step-Down (Oral Therapy)

- - Start when: Afebrile and Clinically stable
  - Options: Ciprofloxacin 500 mg BD + Metronidazole TDS or Amoxicillin-clavulanate 625–1 g TDS

Duration:

- IV: 2–3 weeks followed by Oral: 2–4 weeks = total 6-8 weeks

Drainage:

- >5 cm

- Left lobe
- No improvement 48–72 hrs
- Impending rupture

10. Monitoring

- Daily symptoms
- Temp 6-hourly
- CBC/CRP every 2–3 days
- LFT weekly
- Imaging 5–7 days

11. Complications

- Rupture
- Sepsis
- Pleural effusion
- Empyema
- Chronic abscess

12. Discharge Criteria

- Afebrile >48 hrs
- Stable vitals
- Improved symptoms

13. Follow-Up

- 2 weeks and 4–6 weeks

- Repeat USG

14. Patient Education

- Avoid alcohol
- Complete antibiotics
- Hygiene

15. Special Considerations

- High amoebic prevalence
- USG preferred
- Early drainage

16. References

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