CHOLANGIOHEPATITIS

Inflammation of the Bile Ducts and Liver Tissue

Vet Med 517-Equine Medicine

OVERVIEW

- Inflammation of both the bile ducts (cholangitis) and liver tissue (hepatitis).
- Caused by infection, obstruction, or immune-mediated processes.
- Leads to hepatic dysfunction and sometimes secondary complications (e.g., fibrosis or bile calculi).

ETIOLOGY

- Bacterial infection (ascending from intestine): Gram-negative enteric bacteria (e.g., E. coli, Klebsiella).
- Obstruction: Gallstones or bile sludge.
- Immune-mediated inflammation.
- Parasitic migration (e.g., liver flukes).
- Secondary to:
  - Hepatic abscesses
  - Tumor necrosis
  - Umbilical vein infection (in foals)
  - Vascular compromise or hepatic lobe torsion

ETIOLOGY

FEATURE	ADULT HORSES	FOALS
MAIN CAUSE	Ascending bacterial infection via bile ducts	umbilical or bloodborne infection
COMMON PATHOGENS	E. coli, Klebsiella, Enterobacter	Rhodococcus, Corynebacterium, Streptococcus
LESION	Diffuse inflammation	Discrete abscesses
PROGNOSIS	Good if treated early	Variable (depends on abscess severity)

CLINICAL SIGNS

- Weight loss, icterus, fever, abdominal pain, dermatitis
- Severe cases: hepatic failure → encephalopathy, photosensitization
- Focal abscesses: chronic colic, ill thrift

DIAGNOSIS

- **Laboratory:**
  - ↑ GGT (>300 U/L)
  - Mild ↑ hepatocellular enzymes (AST, SDH)
  - ↑ conjugated bilirubin, bile acids, globulins
  - Neutrophilia, ↑ fibrinogen

- **Imaging:**
  - Ultrasound: distended bile ducts, calculi, sludge, hepatomegaly, fibrosis
  - CT (in foals) for focal abscesses

DIAGNOSIS

- **Other:**
  - Needle aspirate or biopsy for culture and histology
  - Duodenal endoscopy if bile duct obstruction suspected

DIFFERENTIAL DIAGNOSIS

- **Conditions to rule out:**
  - Chronic or recurrent colic
  - Right dorsal displacement of colon
  - Neoplasia
  - Hepatic abscessation (non-septic origin)

- **Key indicators favoring cholangiohepatitis:**

Fever + jaundice + elevated GGT + leukocytosis + hyperglobulinemia

TREATMENT

- **Medical Therapy:**
  - Long-term antimicrobials (3 weeks–6 months):
  - Trimethoprim–sulfa (30 mg/kg q12h)
  - Enrofloxacin (7.5 mg/kg q24h)
  - Metronidazole, Ceftiofur, Penicillin

- **NSAIDs (flunixin meglumine) for pain/inflammation**
- **IV fluids, pentoxifylline, DMSO for severe cases**
- **Avoid sunlight in icteric horses**

TREATMENT

- **Surgical Intervention:**
  - For obstructing calculi or nonresponsive abscesses (rib resection, drainage)

FOLLOW UP & MONITORING

- Continue antibiotics until GGT <100 U/L or normal.
- Recheck GGT post-treatment.
- Follow-up ultrasound to assess hepatic healing or residual abscesses.

PROGNOSIS

- Good prognosis if no bile duct obstruction and liver echogenicity is normal.
- Horses with GGT >2500 U/L can recover with medical therapy.
- Poor prognosis in fibrotic or chronic cases.

SUMMARY

Aspect	Description
Definition	Inflammation of liver & bile ducts
Common in	Adult horses
Main Cause	Ascending bacterial infection
Key Diagnostic Marker	GGT elevation
Treatment	Long-term antibiotics, NSAIDs
Prognosis	Good if treated early

REFERENCE

Lavoie, J. P., & Hinchcliff, K. W. (Eds.). (2018). Blackwell’s five-minute veterinary consult: Equine (3rd ed.). Wiley-Blackwell.

THANK YOU