

## **Slide Seminar**

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### **Case n° 1 ( B 92 / 4208 )**

#### CLINICAL INFORMATION :

16 month-old girl. HBV serology +. Clinic in favour of chronic hepatitis.

#### HISTOLOGY :

- 4 portal triads → classification limited
- **Viral B chronic hepatitis**  
**Mild activity** (*Fig. 1 : focal « piece meal necrosis »*)  
**Portal and septal fibrosis**  
**Metavir A1 F2à3**
- HbsAg : membranous, ++ (*Fig. 2*)  
HbcAg : nuclear +++ (> 60 % hepatocytes) (*Fig. 3*)  
→ « Generalized HBcore type »

### **Case n° 2 ( B 00 / 8249 )**

#### CLINICAL INFORMATION :

5 year-old boy. Clinic in favour of chronic hepatitis B

#### HISTOLOGY :

- 20 portal triads → OK
- Preserved lobular pattern, portal fibrosis with beginning fibrous septa
- **Viral B chronic hepatitis**  
**Mild activity**  
**Moderate portal fibrosis with beginning fibrous septa** (*Fig. 4-5*)  
**Metavir : A1 F2**
- HbsAg : membranous and cytoplasmic, +++ (*Fig. 6*)  
HbcAg : nuclear, < 40 % hepatocytes (*Fig. 7*)  
→ « Focal Hbcore type »

### **Case n° 3 ( B 98 / 8352 )**

#### CLINICAL INFORMATION :

- 17-year-old girl
- HBs+ known since 1984 + cytolysis +++.
- Now : ALT : normal. No symptoms.

#### HISTOLOGY :

- 15 portal triads → OK
- Preserved lobular pattern, portal fibrosis with porto-portal tracts (*Fig. 8-9*)
- **Viral B chronic hepatitis**  
**No activity**  
**Moderate portal fibrosis with porto-portal septa**  
**Metavir : A0 F3**
- HbsAg, intracytoplasmic and membranous, (40 % H) (*Fig. 10*)  
HbcAg negative  
→ « Hbcore free – HBs type »

### **Case n° 4 ( B 99 / 4315)**

#### CLINICAL INFORMATION :

36 year-old man. Serology HBV+ and HCV+. Biopsy before treatment

#### HISTOLOGY :

- 12 portal triads → OK
- Preserved lobular pattern with porto-portal bridges (*Fig. 11*) and 1 porto-central bridge (*Fig. 12*)
- « Ground glass » hepatocytes (cf. intracytoplasmic HbsAg) (*Fig.13*)
- **Viral B + C chronic hepatitis**  
**No activity**  
**Portal fibrosis with porto-portal and porto-central brigdes**  
**Metavir : A0 F2-3**
- HbsAg cytoplasmic (80 H) (*Fig. 14*)  
Hbcore Ag negative  
→ « Hbcore free – HBs type »  
→ Etiology : rôle of virus C > virus B

### **Case n° 5 ( B 00 / 7264 )**

#### CLINICAL INFORMATION :

72 year-old woman. HCV+ → autoimmune hepatitis + Medrol  
A present : HCV reactivation with Medrol to exclude

#### HISTOLOGY :

- 10-12 portal triads → OK
- Preserved lobular pattern with one fibrous septum (*Fig. 15*)
- Focal « piece meal necrosis » (*Fig. 16*) and eosinophilic discrete condensation of few intralobular hepatocytes (*Fig. 17*)
- Discrete focal, macrovesicular steatosis (*Fig. 17*)
- **Viral C chronic hepatitis**  
**Moderate activity**  
**Mild portal fibrosis with one fibrous septum**  
**(Metavir A2F2)**

### **Case n° 6 ( B 00 / 9715) :**

#### CLINICAL INFORMATION :

61 year-old woman. HCV+. ANA+ (1/2500). ALT increased. Hemodialysis for nier insufficiency.

#### HISTOLOGY :

- 17 portal triads → OK
- Intralobular hepatocytes condensations (*Fig. 18*) + « piece meal necrosis » (*Fig. 19*)
- Preserved lobular pattern with portal fibrosis and some porto-portal brigdes (*Fig. 20*)
- Focal moderate macrovesicular steatosis
- **Viral C chronic hepatitis**  
**Moderate activity**  
**Portal fibrosis with porto-portal bridges**  
**Metavir : A2 F3**

NB : No histologic signs of autoimmunity : no severe activity, no plasmacytes  
But negative histology can't exclude the role of autoimmunity.

**Case n° 7 (B 00 / 4623) :**

CLINICAL INFORMATION :

20 year-old man. Viral C hepatitis on injection of Factor VIII (haemophilia)

HISTOLOGY :

- 2-3 portal triads → limited in contributivity. No classification possible.
- **Contributivity of the biopsy is limited : Viral C chronic hepatitis - no activity – Mild portal fibrosis.**
- Factors suggestive of viral C etiology : intraportal lymphoid follicle, bile duct lesions (*Fig. 21*)

**Case n° 8 (B 00 / 3259) :**

CLINICAL INFORMATION :

- 47 year-old woman
- Increased ALT and Gammaglobulines, FAN+
- Jaundice.
- AUGMENTIN\* 6 months ago → hepatitis
- → ? Autoimmune hepatitis favoured by AUGMENTIN\* ?

HISTOLOGY :

- Contributivity OK
- Preserved lobular pattern with extensive portal fibrosis and formation of porto-portal bridging.
- Severe « piecemeal necrosis » + centrilobular collapse
- Many plasmacytes in inflammatory infiltrate
- Macrophages containing PAS + diastase resistant pigments → sign of previous necrosis
- **Autoimmune hepatitis – severe activity – Severe portal fibrosis with porto-portal bridging**  
**Metavir : A3 F3**

**Case n° 9 (B 92 / 11789) :**

CLINICAL INFORMATION :

59 year-old woman. Vasculitis. Cytolysis and cholestasis. No risk factors for HCV. Autoimmune hepatitis ? Sinds 5 years : URFADYN\* (nifurotinol), REDOMEX\* (Amytryptiline), ESTULIC\* (Guanfacine).

HISTOLOGY :

- **Hepatitis – severe activity (A3) – Portal fibrosis with porto-portal and porto-central bridging (F3)**
- Chronic or acute ? (see biology : hepatic alterations < or > 6 months ?)
- Etiology ?  
Autoimmune ? → serology negative / no plasmacytes  
Toxic ? cf. microgranuloma – steatosis (*Fig. 28*)  
**URFADYN\* : → In the literature : severe hepatitis with important « piecemeal necrosis » (*Fig.26*) and condensations of the hepatocytes (*Fig. 27*) . Sometimes : granulomas (*Fig 28*).**

**Case n° 10 (B 00 / 1846) :**

CLINICAL INFORMATION :

53 year-old man. Transjugular liver biopsy. Ethylism. Gradient : 16 mm.

HISTOLOGY :

- **Micronodular cirrhosis**
- **Diffuse severe macrovesicular steatosis**
- Satellitosis (enlarged hepatocyte with Mallory's bodies and cytoplasmic infiltration by polymorphonuclear cells)
- → **alcoholic steatohepatitis**

**Case n° 11 (B 99 / 9869) :**

CLINICAL INFORMATION :

47 year-old man. Transjugular liver biopsy. Jaundice ++ (Bili : 37), decreased PTT (37 %) Alcohol ++. Suspicion of alcoholic hepatitis and cirrhosis.

HISTOLOGY :

- **STEATOCIRRHOSIS + SINUSOIDAL FIBROSIS** (*Fig. 31*)
- **ALCOHOLIC HEPATITIS** (cf. satellitosis and Mallory's bodies : *Fig. 32*)
- **Focal cholestasis**

**Case n° 12 (B 99 / 10372) :**

CLINICAL INFORMATION :

28 year-old girl. Transjugular liver biopsy. Obesity ++. Gradient : N. Cytolysis : 3 x N. Non alcoholic steatohepatitis (NASH) ?

HISTOLOGY :

- **Diffuse severe macrovesicular steatosis** (*Fig. 33*)
- **Severe and stellate portal fibrosis** (*Fig. 33*)
- **Non alcoholic steatohepatitis (NASH)** (focal satellitosis) (*Fig. 34*)

**Case n° 13 (B 89 / 5959) :**

CLINICAL INFORMATION :

43 year-old woman. ?

HISTOLOGY :

- **cirrhosis**
- **Mild activity** : Inflammatory infiltration of portal triads and fibrous septa with few « piecemeal necrosis »
- Intracytoplasmic eosinophilic granules in the periportal hepatocytes (*Fig. 35*). They are PAS positive amylase resistant (*Fig. 36*)
- Specific immunoperoxidase stain is positive for **A1-antitrypsin** (*Fig. 37*).

**Case n° 14 (B 99/ 1403) :**

**CLINICAL INFORMATION :**

59 year-old woman. Transvenous liver biopsy. Cholestasis. Normal pressure. PBC ?

**HISTOLOGY :**

- steatosis
- On serial slides : typical bile duct lesion (*Fig. 38*) :
  - interruption of the basal membrane of the bile duct
  - anisonucleosis of the epithelium
  - epithelial vacuolisation
  - intraepithelial lymphocytic infiltration
  - peripheral lymphocytic infiltrate

→ **Primary biliary cirrhosis (stade 1)**

Case	Biopsy	Lesions	Stain
1.	92/4208	Fig. 1 : Focal piece meal necrosis = periportal necrosis	HE
	«	Fig. 2 : Membranous HbsAg ++	Peroxyd.
	«	Fig. 3 : Nuclear HbcAg ++	Peroxyd.
2.	00 /8249	Fig. 4 : Widened portal tract (« maple-leaf » configuration with lymphocytic infiltration (F2)	Trichrom
	«	Fig. 5 : 2 Closenes of two portal tracts and beginning fibrous septum (F2)	Trichrom
	«	Fig. 6 : Cytoplasmic and membranous HbsAg ++	Peroxyd.
	«	Fig. 7 : Nuclear HbcAg (< 40 % hepatocytes)	Peroxyd
3.	98 /8352	Fig. 8 : Maple-leaf configuration of the portal triad	HE
	«	Fig. 9 : Porto-portal bridging	Trichrom
	«	Fig. 10 : Cytoplasmic HbsAg +++	Peroxyd
4.	99 /4315	Fig. 11 : Porto-portal bridging	Trichrom
	«	Fig. 12 : Porto-central bridging	Trichrom
	«	Fig. 13 : « Ground-glass » hepatocytes	HE
	«	Fig. 14 : Intracytoplasmic HbsAg (> 80 % hepatocytes)	Peroxyd
5.	00 /7264	Fig. 15 : Fibrous septum crossing the biopsy	Trichrom
	«	Fig. 16 : « Piece meal necrosis » = periportal necrosis	HE
	«	Fig. 17 : Eosinophilic necrosis of hepatocytes Focal, macrovesicular steatosis	HE
6.	00 /9715	Fig. 18 : Intralobular eosinophilic bodies Focal macrovesicular steatosis	HE
	«	Fig. 19 : « Piece meal necrosis » = periportal necrosis	HE
	«	Fig. 20 : Porto-portal bridging	Trichrom
7.	00 /4623	Fig. 21 : Intraportal lymphoid follicle Bile duct lesion	HE
8.	99 /3259	Fig. 22 : Porto-portal bridging	Trichrom
	«	Fig. 23 : « Piece meal necrosis » Numerous plasmacytes	HE
	«	Fig. 24 : Centrilobular collapsus	Trichrom
	«	Fig. 25 : PAS amyase resistant pigments in Kupffer cells (aspecific signs of cytolysis)	PASD+
9.	92/11789	Fig. 26 : « Piece meal necrosis »	HE
	«	Fig. 27 : Eosinophilic necrosis of the hepatocytes	HE
	«	Fig. 28 : Microgranuloma and macrovesicular steatosis	HE
10	00/ 1846	Fig. 29 : steatocirrhosis	Trichrom
	«	Fig. 30 : « satellitosis » = ballooning hepatocyte with intracytoplasmic Mallory's bodies and intracellular polymorphonuclear leucocytes	HE
11	99/9869	Fig. 31 : cirrhosis + sinusoidal fibrosis	Trichrom
	«	Fig. 32 : « satellitosis » = ballooning hepatocyte with intracytoplasmic Mallory's bodies and intracellular polymorphonuclear leucocytes	HE
12	99/10372	Fig. 33 : steatofibrosis	Trichrom
	«	Fig. 34 : « satellitosis » = ballooning hepatocyte with intracytoplasmic Mallory's bodies and intracellular polymorphonuclear leucocytes	HE
13	89 /5959	Fig. 35 : A1-antitrypsin globules in periportal hepatocytes	HE
	«	Fig. 36 : A1-antitrypsin globules in periportal hepatocytes	PASD
	«	Fig. 37 : A1-antitrypsin globules in periportal hepatocytes	Peroxyd
14	99 / 1403	Fig. 38 : Bile duct lesion in Primary biliary cirrhosis	HE

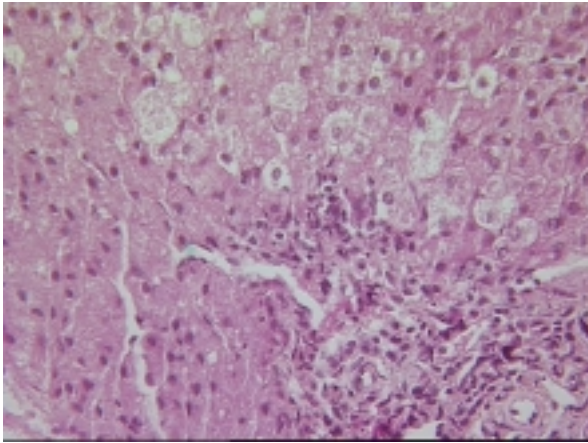


fig. 1

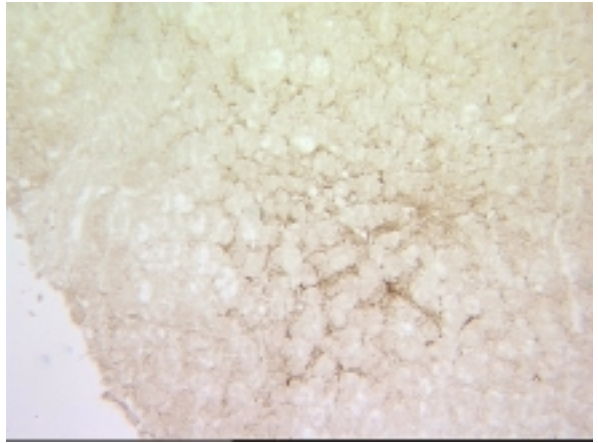


fig. 2

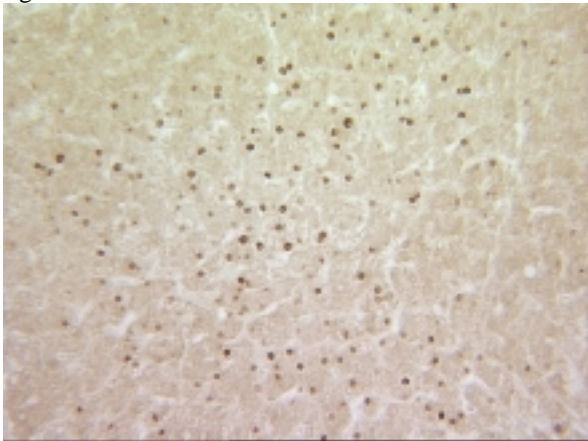


fig. 3

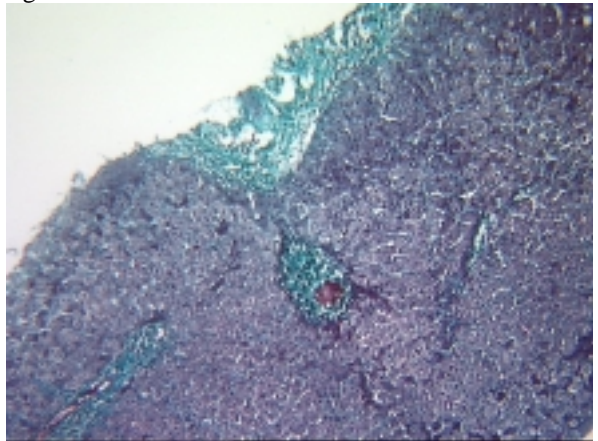


fig. 4

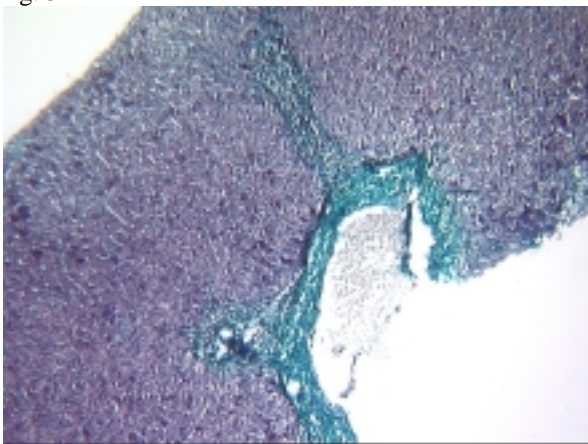


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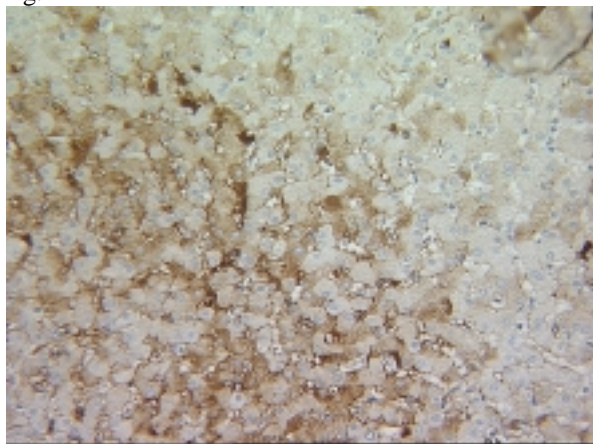


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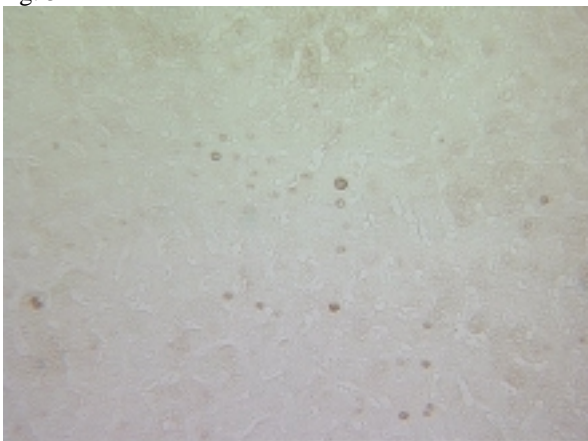


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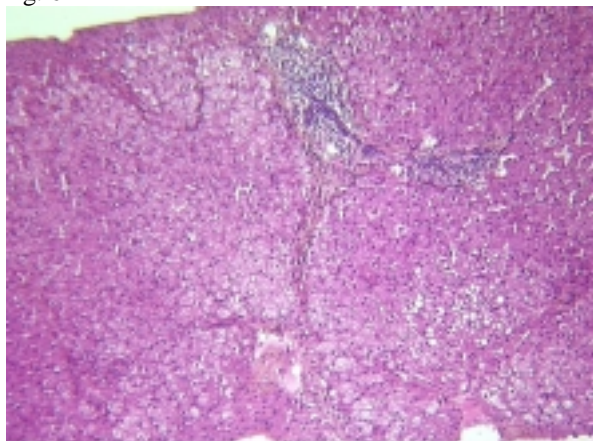


fig. 8



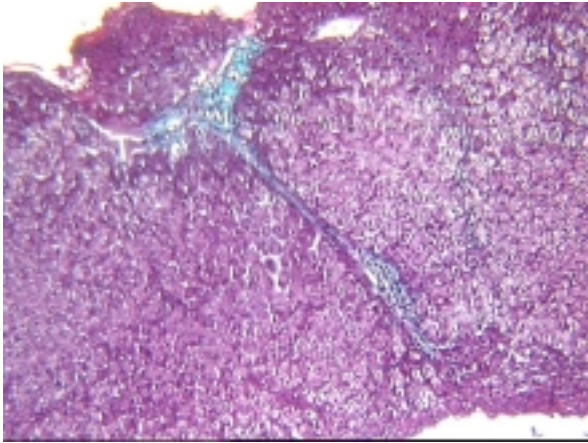


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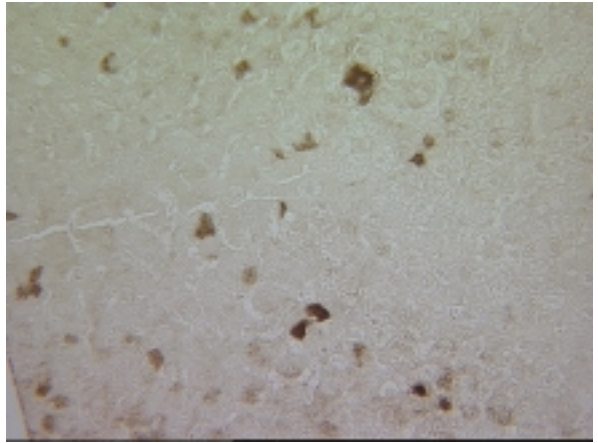


fig. 10

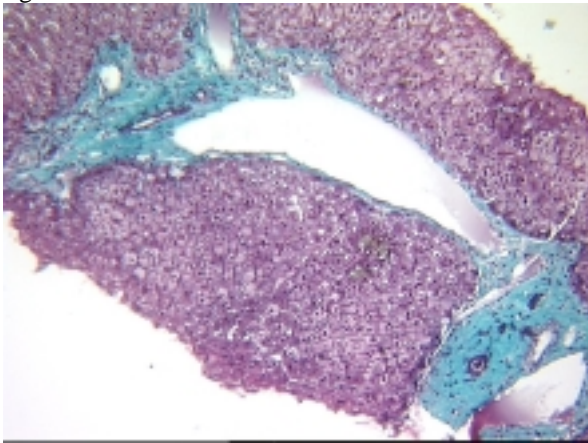


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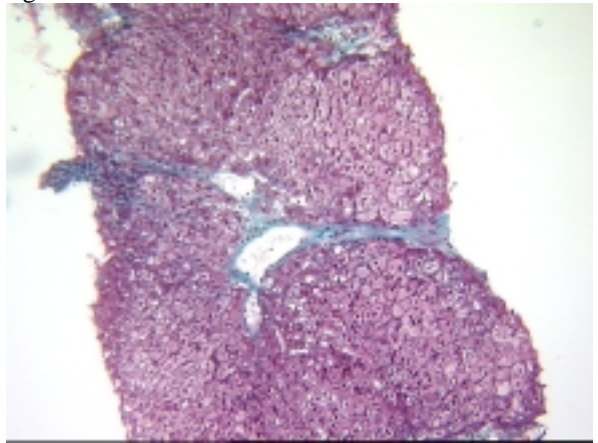


fig. 12

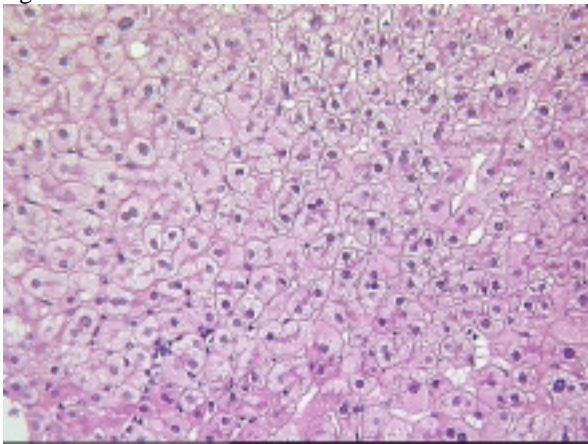


fig. 13

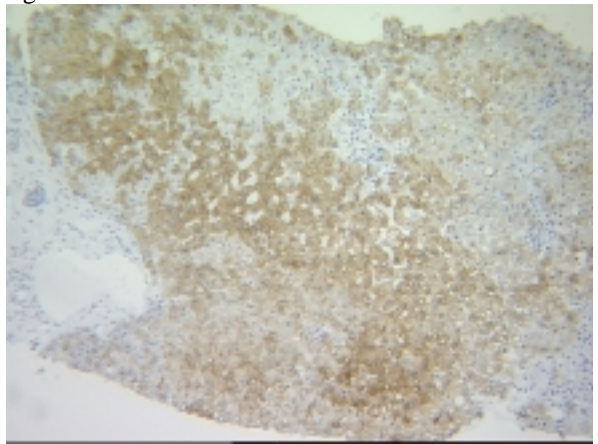


fig. 14

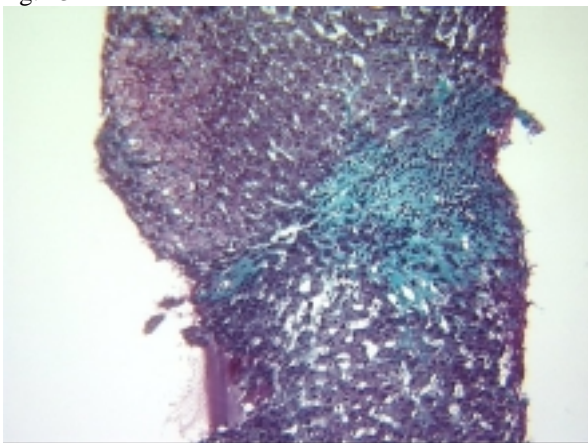


fig. 15

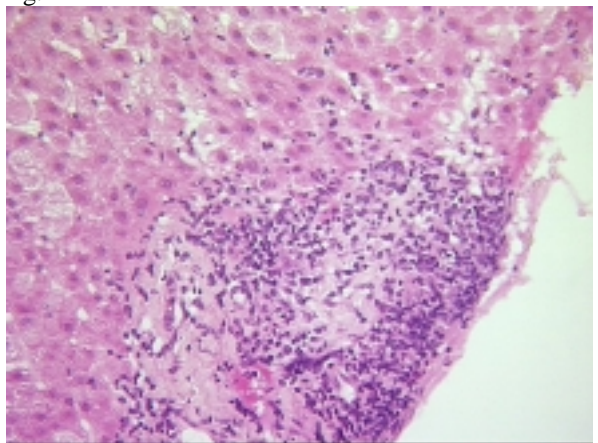


fig. 16

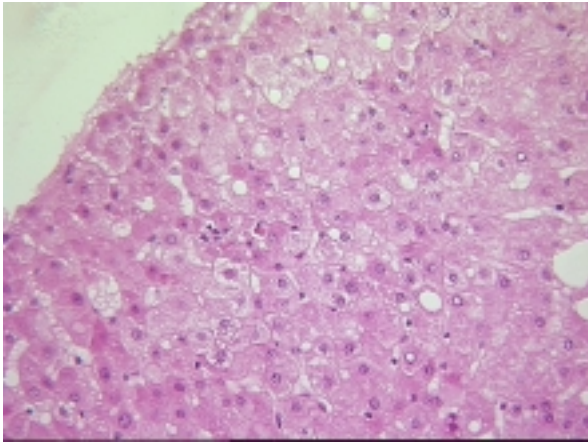


fig. 17

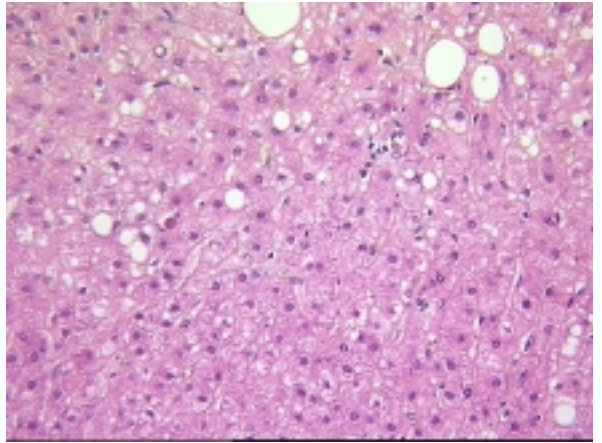


fig. 18

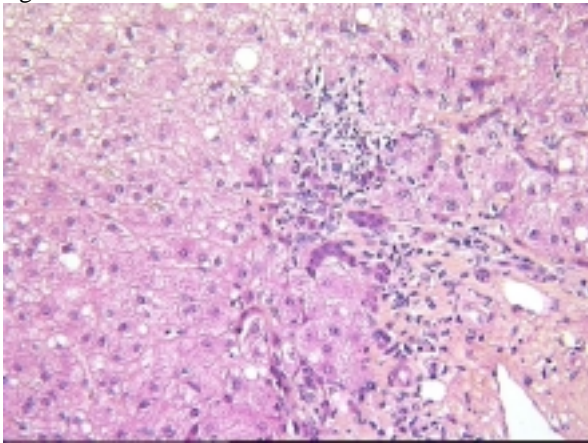


fig.19

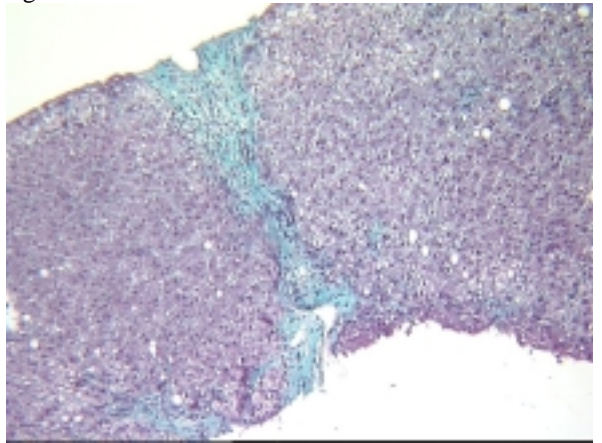


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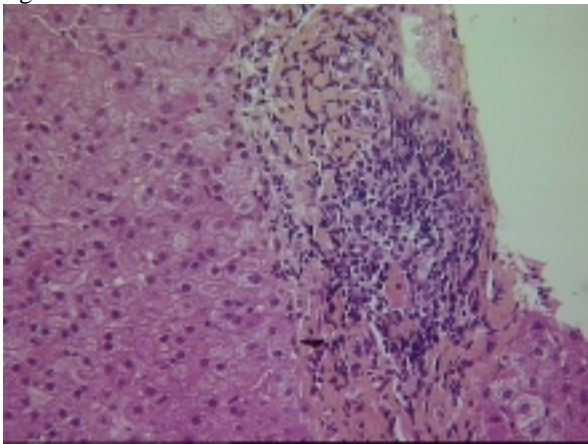


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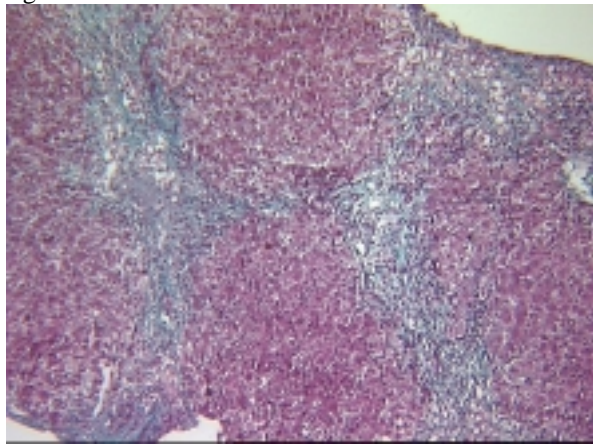


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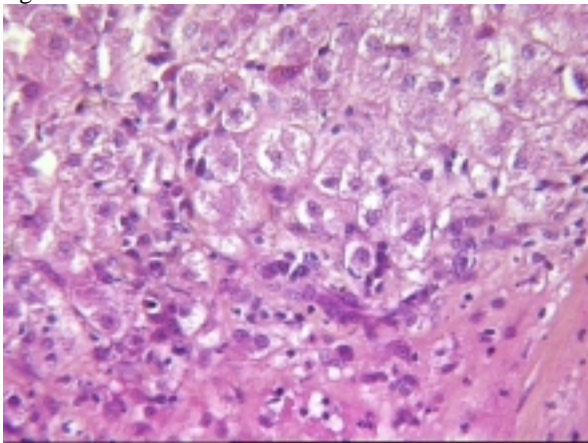


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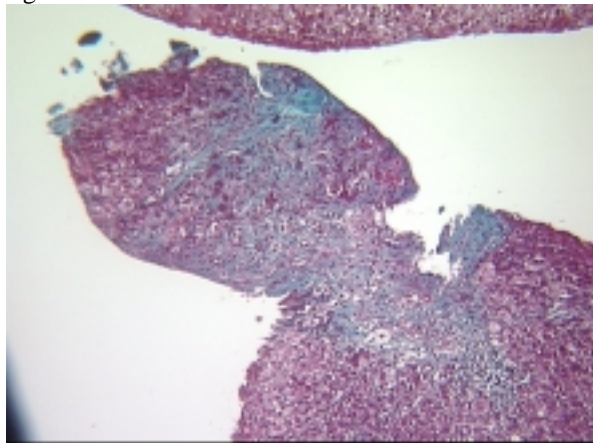


fig. 24

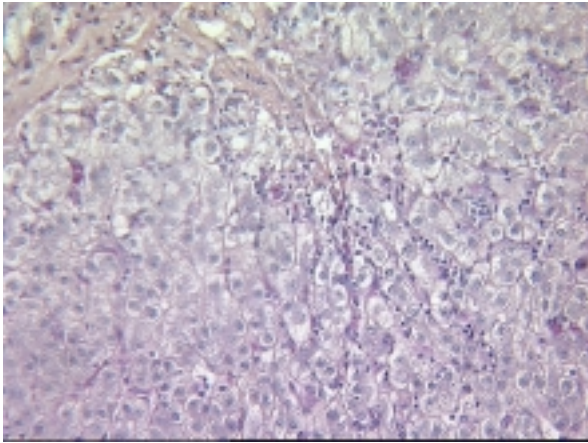


fig. 25

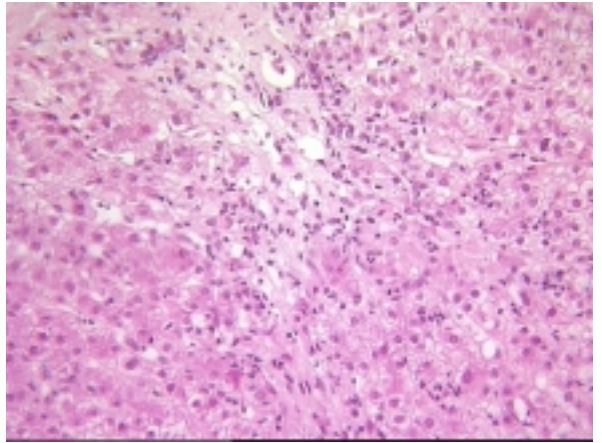


fig. 26

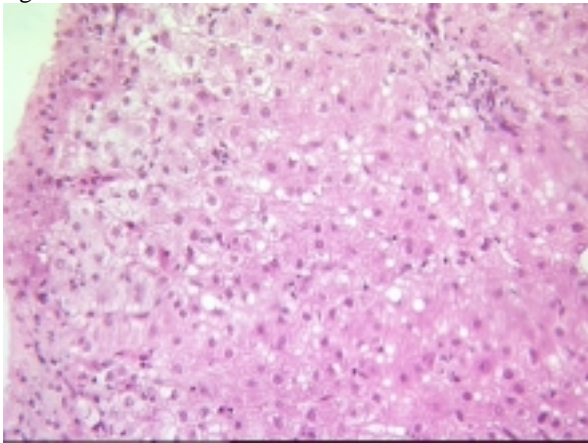


fig. 27

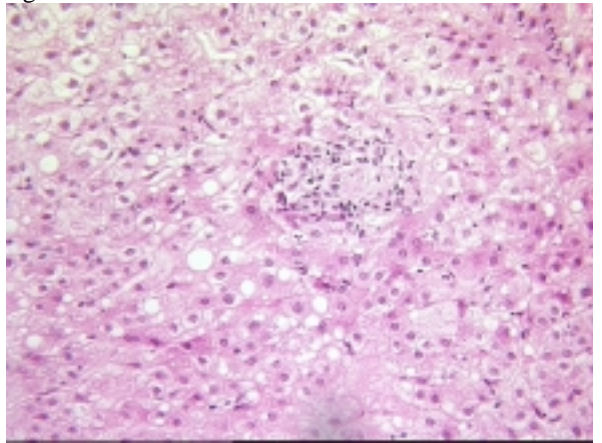


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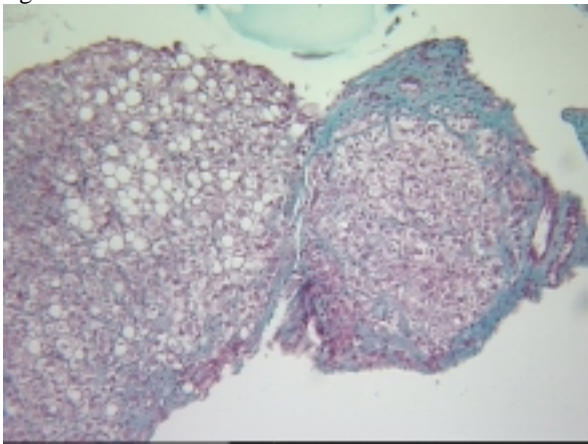


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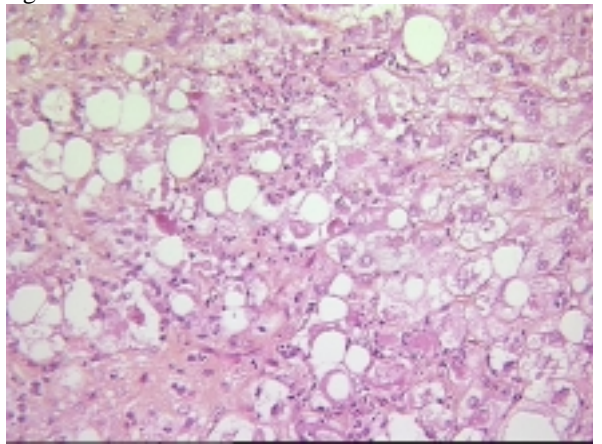


fig. 30

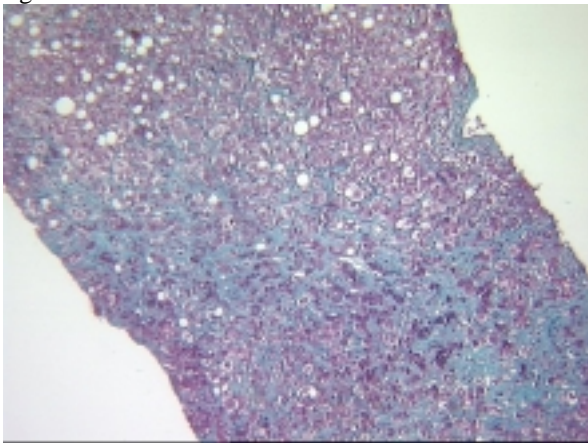


fig. 31

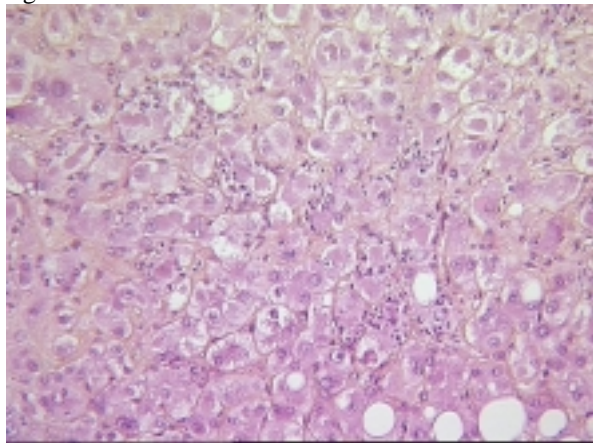


fig. 32

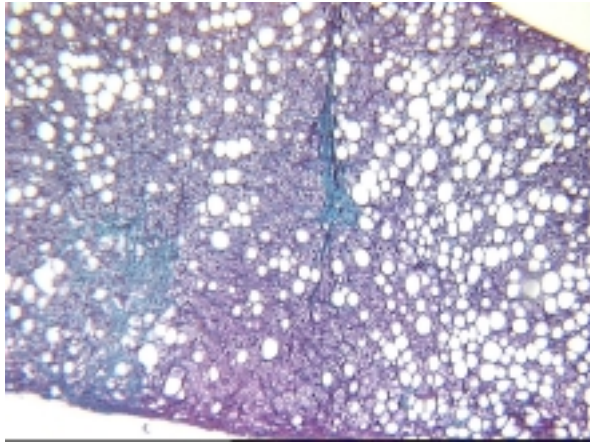


fig. 33

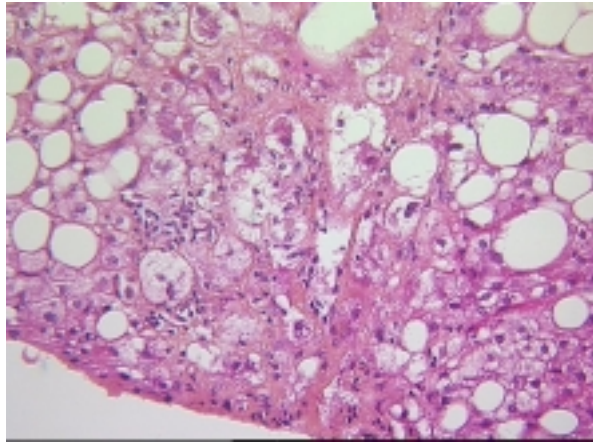


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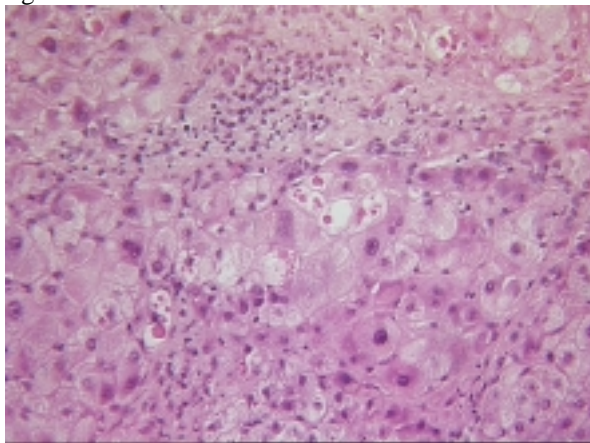


fig. 35

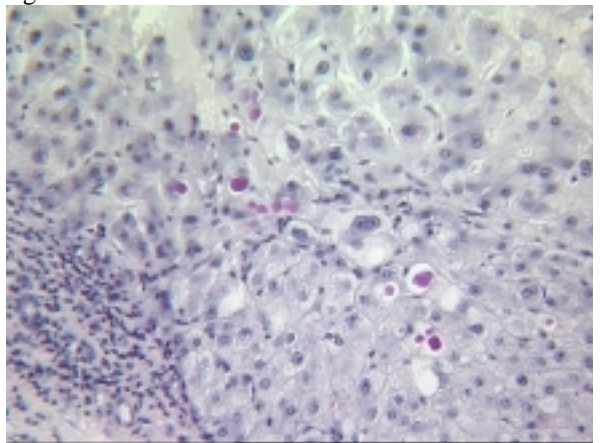


fig. 36

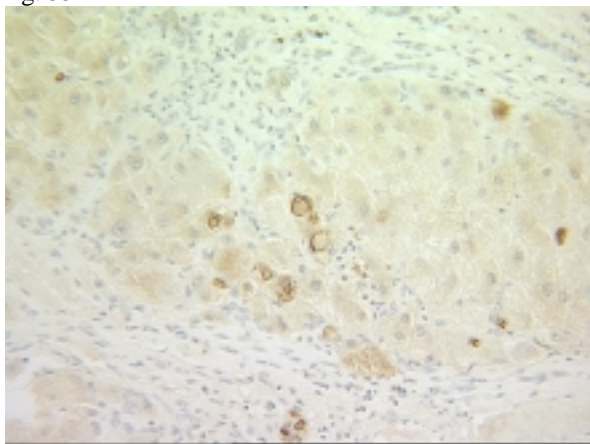


fig. 37

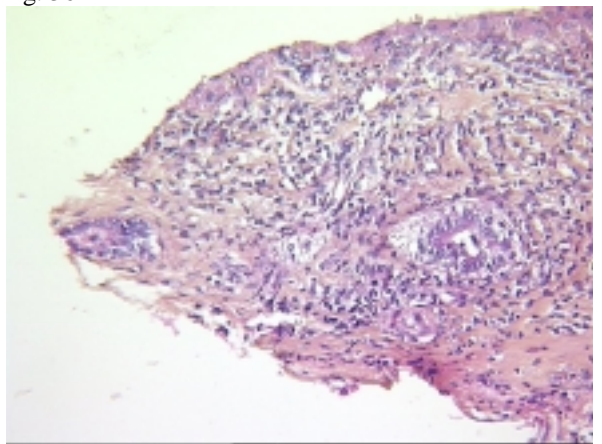


fig. 38