



Round : ..General surgery.....

Group no : B3.....

Done By : ..Fatima abu assal.....

Hydatid disease

✨ 75% asymptomatic

🌸 Caused by cestode parasites specially *Echinococcus granulosus* (tapeworm) + *E. multilocularis*

🌸 Definitive Host (dogs, cats, pats) ingest metacestodes

✨ The tapeworm is in the hosts

✨ Eggs shed in feces by the definitive host

🌸 Intermediate host (humans, rats, herbivores) ingest the eggs the larva will release and penetrate the intestine wall targeting the organs

✨ Hydatid cyst layers:

◆ the outer pericyst composed of modified host cells (fibrous capsule)

◆ The middle laminated membrane (ectocyst) acellular and allow the passage of nutrients

◆ The inner germinal layer secretes fluid in the lumen of cyst causing hydatid cyst, form ectocyst, make brood capsule and daughter cysts, scolices attached here

✨ Daughter vesicles contain the Protoscolices

✨ Hydatid sand = brood capsule + protoscoleces + calcareous

🌸 Protoscolex in definitive host the scolex will become adult tapeworm While in intermediate host it will become a new hydatid cyst

✨ In *E. Granulosus* usually one cyst present mostly in liver right lobe (80%) or in lungs (20-25%) and it's gonna be found in any other organs

✨ In *E. Multilocularis*. The cysts not enclosed within membrane so they will invade the surrounding tissue causing a progressive and malignant disease

🌸 Gold standard diagnosis is ultrasound

Treatment:

Treatment of choice is surgery For uncomplicated hydatid disease of the liver (recurrence rate 10%)

🌸 Wait and see in : a small cyst <4 cm, located deep in liver, uncomplicated

🌸 Medical treatment anti-parasitics (albendazole) is the drug of choice 10mg/kg (absorbed from intestine and metabolized by liver (not Mebenezole) if these used alone the recurrence rate is high (70%-80%) if albendazole combined with PAIR treatment success rate will reach 70% and low rate of recurrence

🌸 PAIR treatment (puncture aspiration injection of scolicidal agent and re-aspiration)

🌸 Scolicidal agents: ethanol (70-95%), hypertonic saline (15-20%), cetrimide solution (0.5%), chlorhexidine gluconate (0.04)

✨ No vaccine for humans but there is a vaccine for sheep

🌸 Todani classification (Choledochal cyst)



The "Todani classification" is a widely used system to categorize "choledochal cysts", which are congenital cystic dilations of the bile ducts. These cysts are classified into five main types based on their anatomical location and features: ### **Type I: Extrahepatic Cystic Dilatation** - **Subtypes:** - **Ia:** Diffuse cystic dilation of the common bile duct. - **Ib:** Focal segmental dilation of the common bile duct. - **Ic:** Fusiform dilation of the common bile duct. - **Features:** Most common type (50-85%). Involves the extrahepatic bile duct, with a normal intrahepatic duct. - ### **Type II: Extrahepatic Supraduodenal Diverticulum** - **Features:** Isolated saccular outpouching from the extrahepatic bile duct without involvement of the main bile duct. - ### **Type III: Choledochocoele** - **Features:** Cystic dilation located within the duodenal wall (in the intramural portion of the bile duct). Sometimes associated with obstructive symptoms due to the narrowing of the duct at the ampulla. - ### **Type IV: Multiple Cystic Dilatations** - **Subtypes:** - **IVa:** Involves both intrahepatic and extrahepatic bile ducts. - **IVb:** Involves only the extrahepatic bile duct. - **Features:** Commonly associated with bile duct strictures and a higher risk of malignancy. - ### **Type V: Caroli Disease** - **Features:** Cystic dilation of the intrahepatic bile ducts only. Associated with "Caroli syndrome", which includes congenital hepatic fibrosis. It is the rarest type. - ### Clinical importance: - Choledochal cysts can lead to complications such as bile duct obstruction, cholangitis, pancreatitis, biliary cirrhosis, and an increased risk of cholangiocarcinoma. - Treatment is usually "surgical excision" of the cyst, with or without bile duct reconstruction (e.g., hepaticojejunostomy). If you want more detailed information or surgical implications, let me know!

