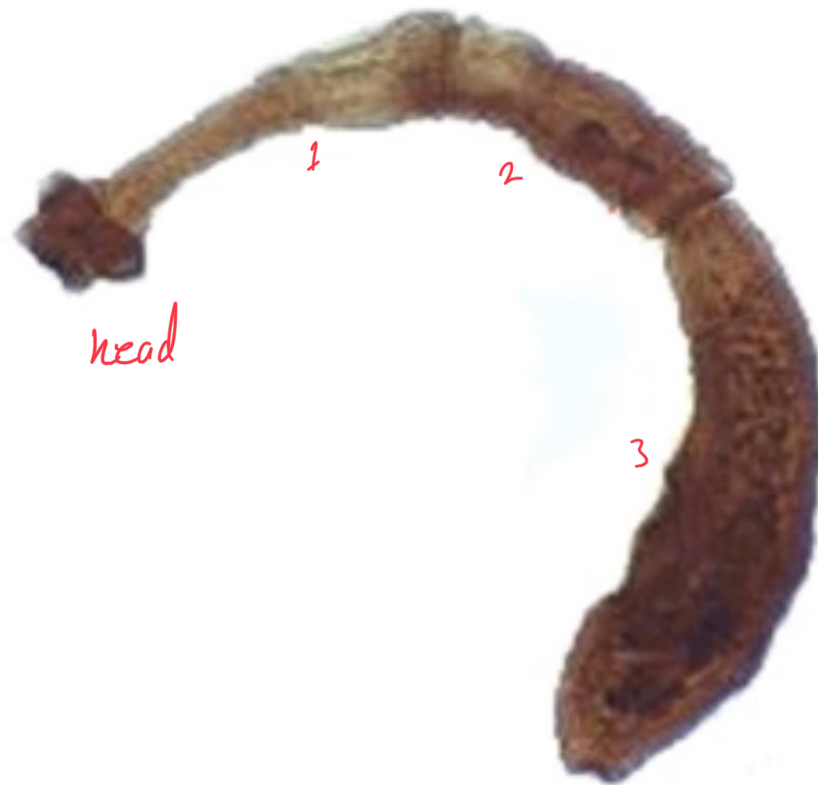


***Echinococcus granulosus***

**adult**

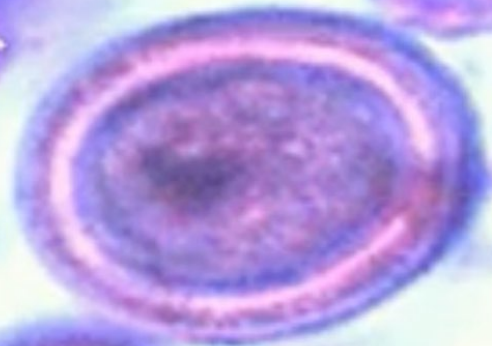


**(By P.W. Pappas and S.M. Wardrop; original by P. Darbe**

Liver Hyd  
Activate  
Go to Settings

# ***Echinococcus granulosus***

**egg**

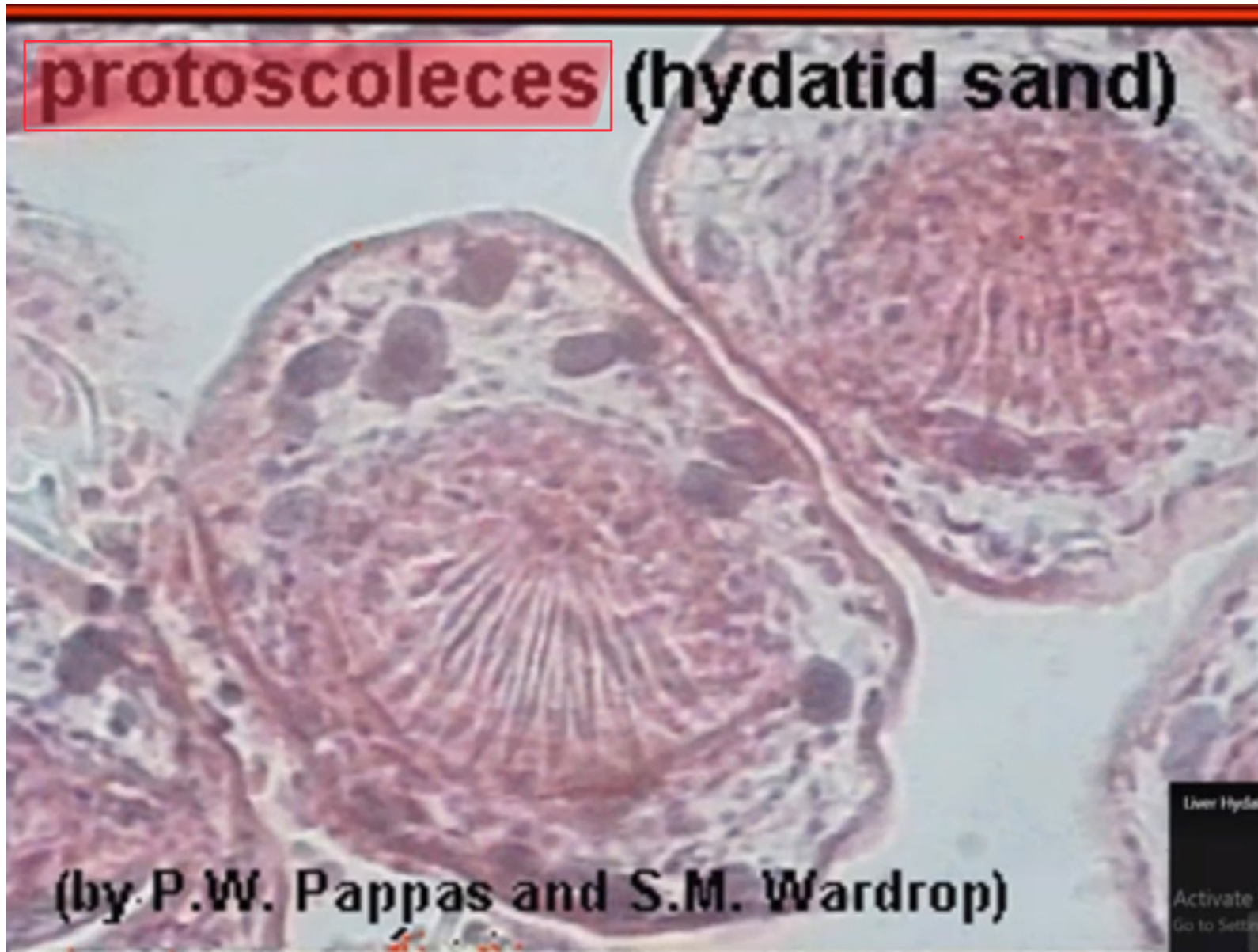


**(By P.W. Pappas and S.M. Wardrop;  
original by P. Darben)**

Live Hydr

Activate  
Go to Sett

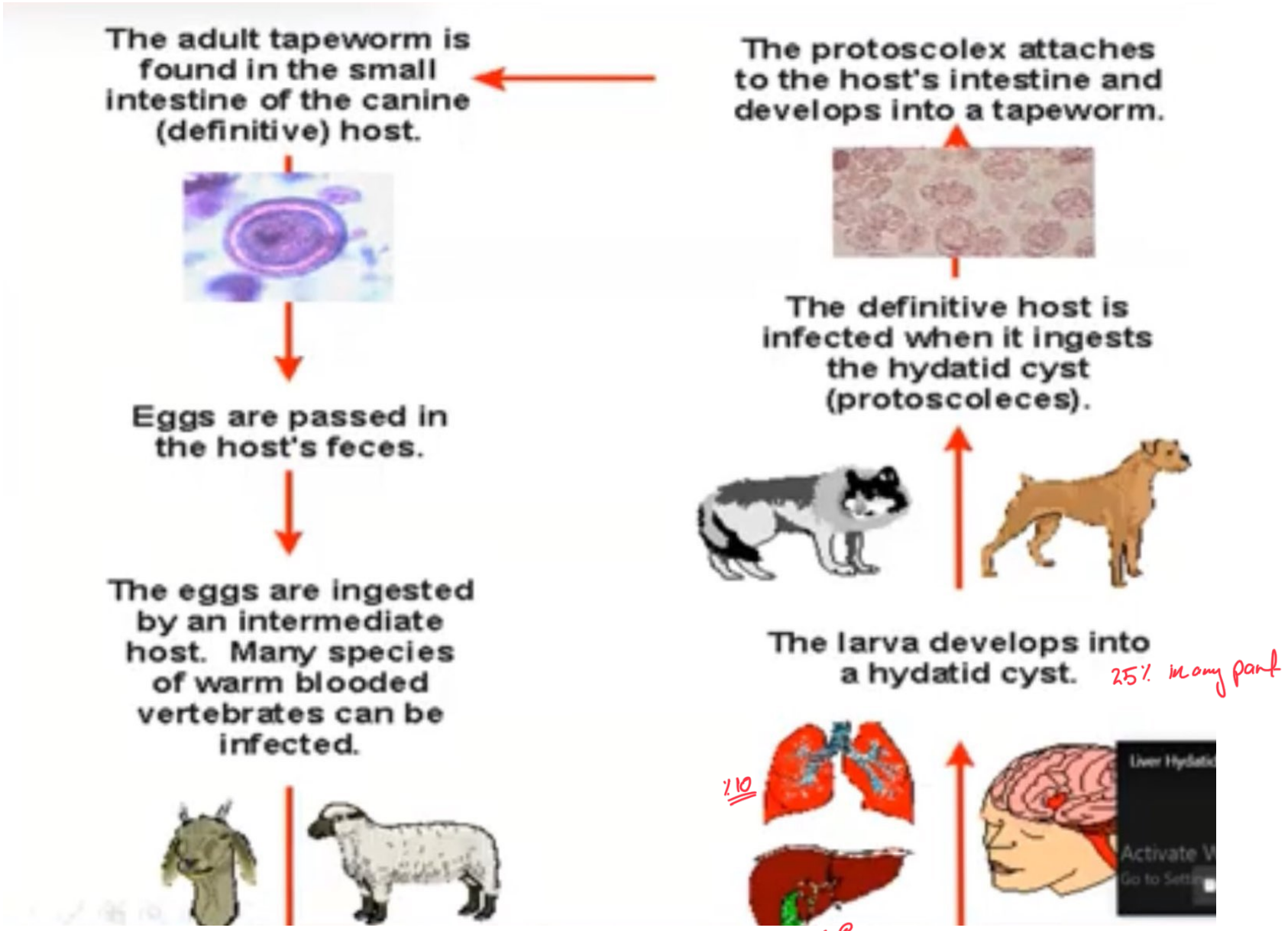
**protoscoleces (hydatid sand)**



(by P.W. Pappas and S.M. Wardrop)

Live Hydatid

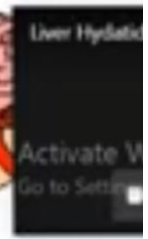
Activate  
Go to Settings

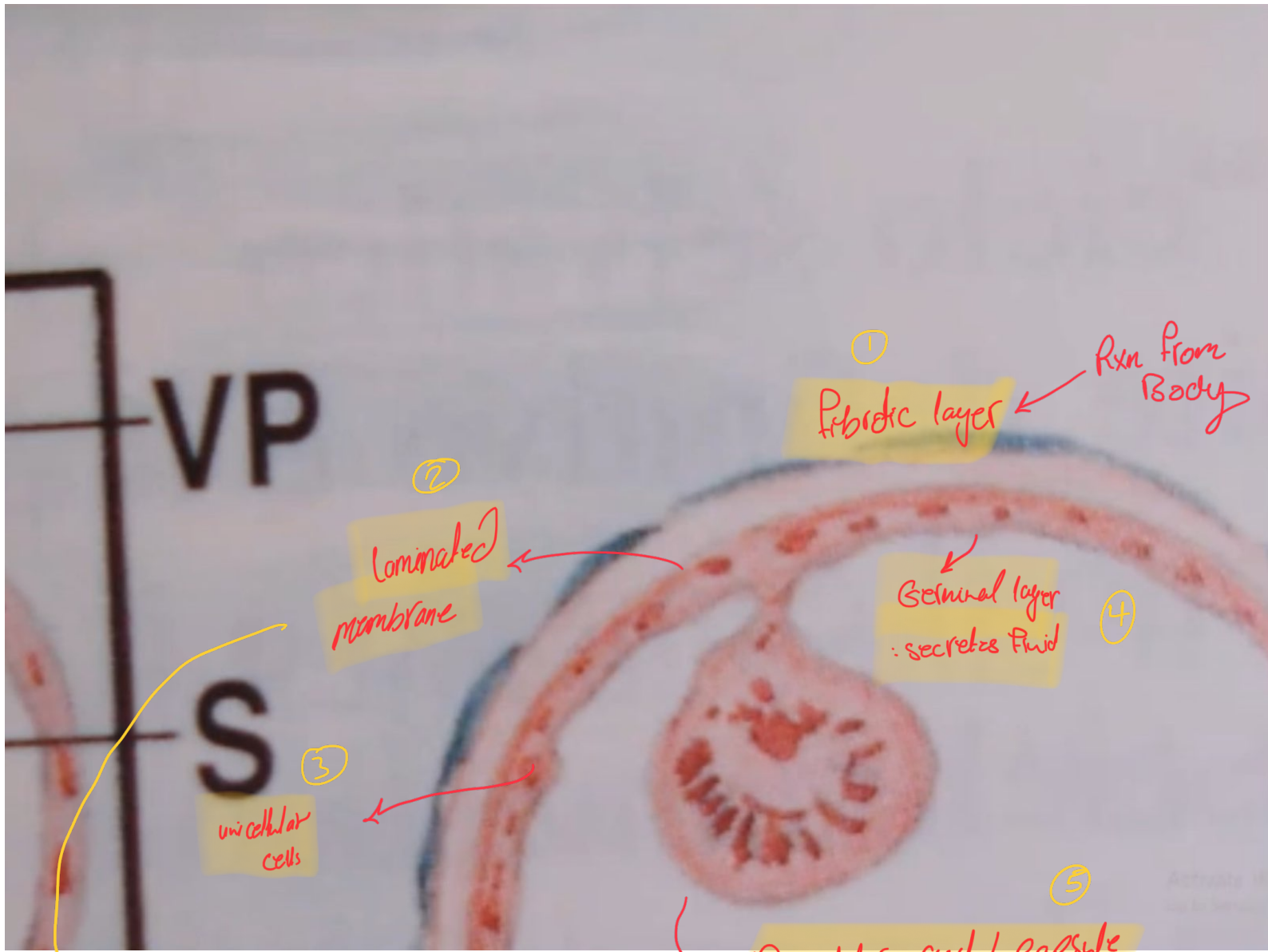


*By non-controlled Dogs*

*10%*

*65% up*





→ is a Cushing of Germinal

## CLINICAL FEATURES

- ▶ **LATENCY** (Asymptomatic, Abdominal pain).
- ▶ **SUPPURATION**: 11%-27%. E. COLI
- ▶ **PRESSURE EFFECTS**: LIVER TISSUE, HILUM, HEPATIC VEINS .....etc.

## Clinical Features

### RUPTURE:

- Obscure: rupture of the endocyst.
- Communicant Rupture: biliary tree, bronchial tree.

*serosal & laminated within the fibrotic layer*

- Free Rupture: free body cavities or adjacent organs. (1-4%)

*Rare*

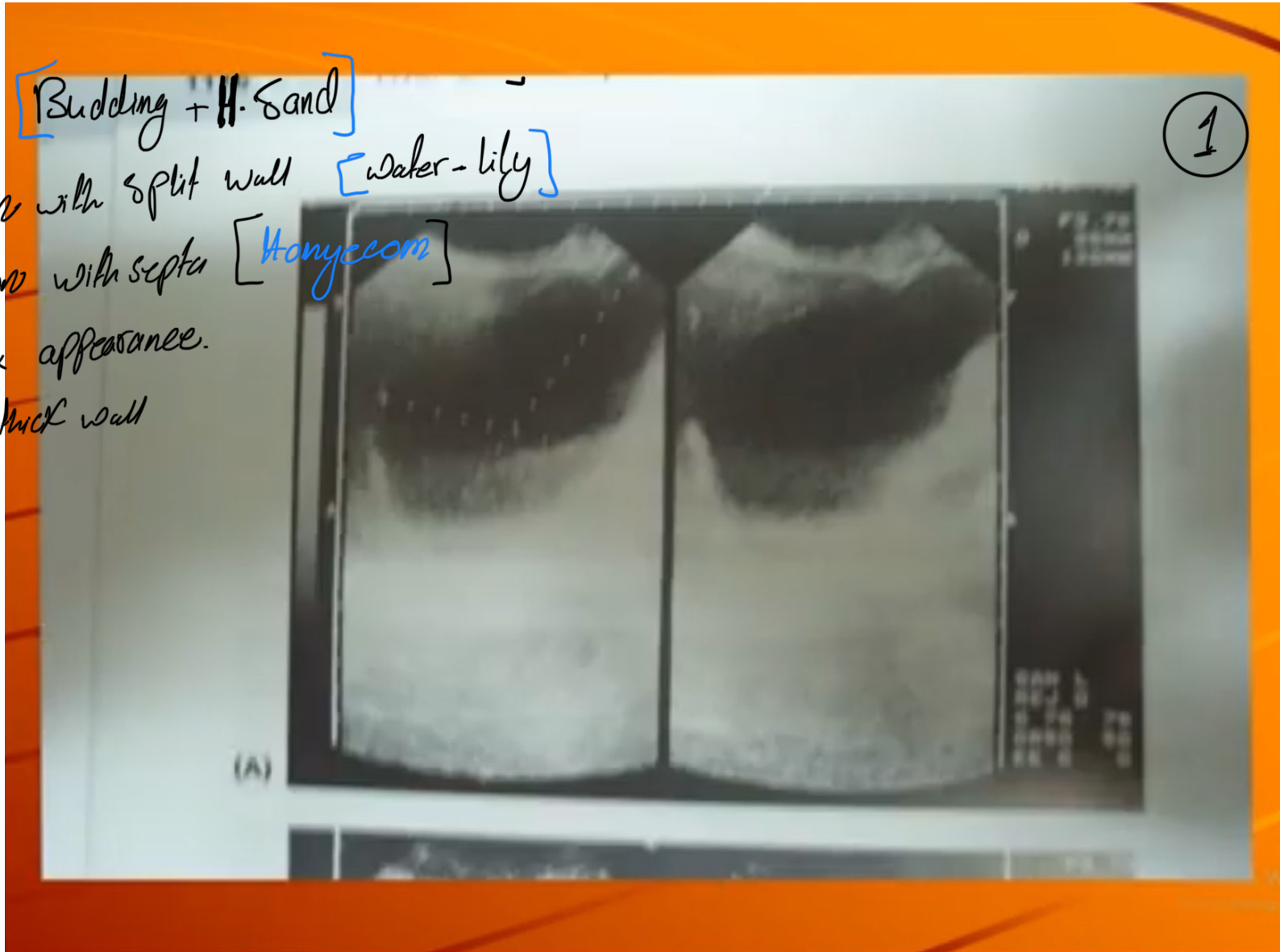
*peritoneal cavity*

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Go to Settings to activate Windows.

## Diagnosis - Imaging

- x-ray  $\Rightarrow$  For calcifications
- US

1. Simple H.C [Budding + H. Sand]
2. Fluid collection with split wall [water-lily]
3. Fluid collection with septa [Honeycom]
4. Heterogeneous appearance.
5. Reflecting thick wall





cavities & septations  $\Rightarrow$  Honey comb





Scanned with CamScanner



Scanned with CamScanner

Retracting

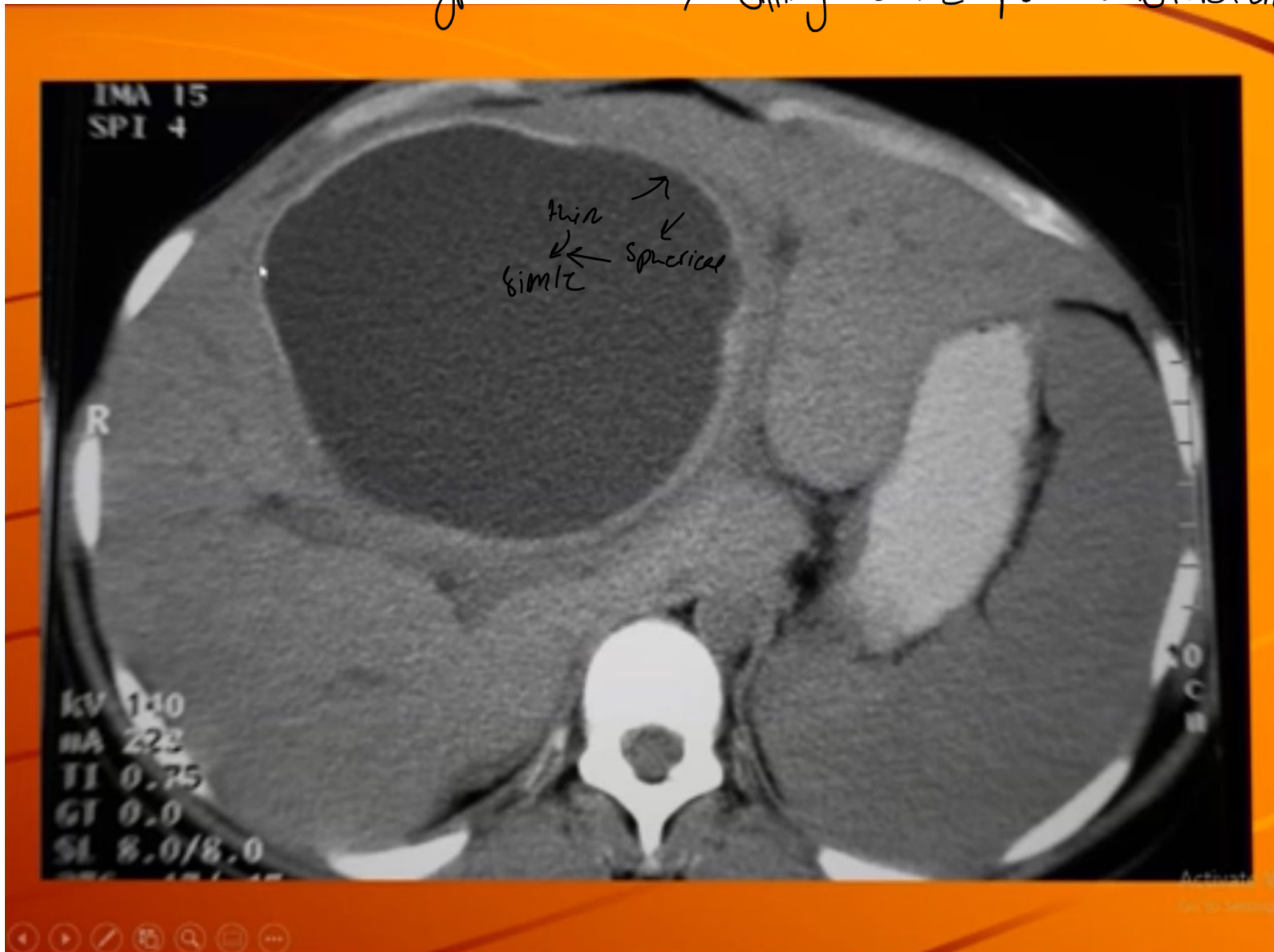


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## Diagnosis-Imaging

- ◆ CT SCAN: typical → located nearest structure
- ◆ MRI. → ex rupture to B-free
- ◆ ERCP. → Diagnostic & Therapeutic
- ◆ PTC. → rarely
- ◆ ANGIOGRAPHY.

Type 1  $\Rightarrow$  sitting on the portal-V Bifurcation  $\rightarrow$  Portal HTD  
 $\rightarrow$  varices

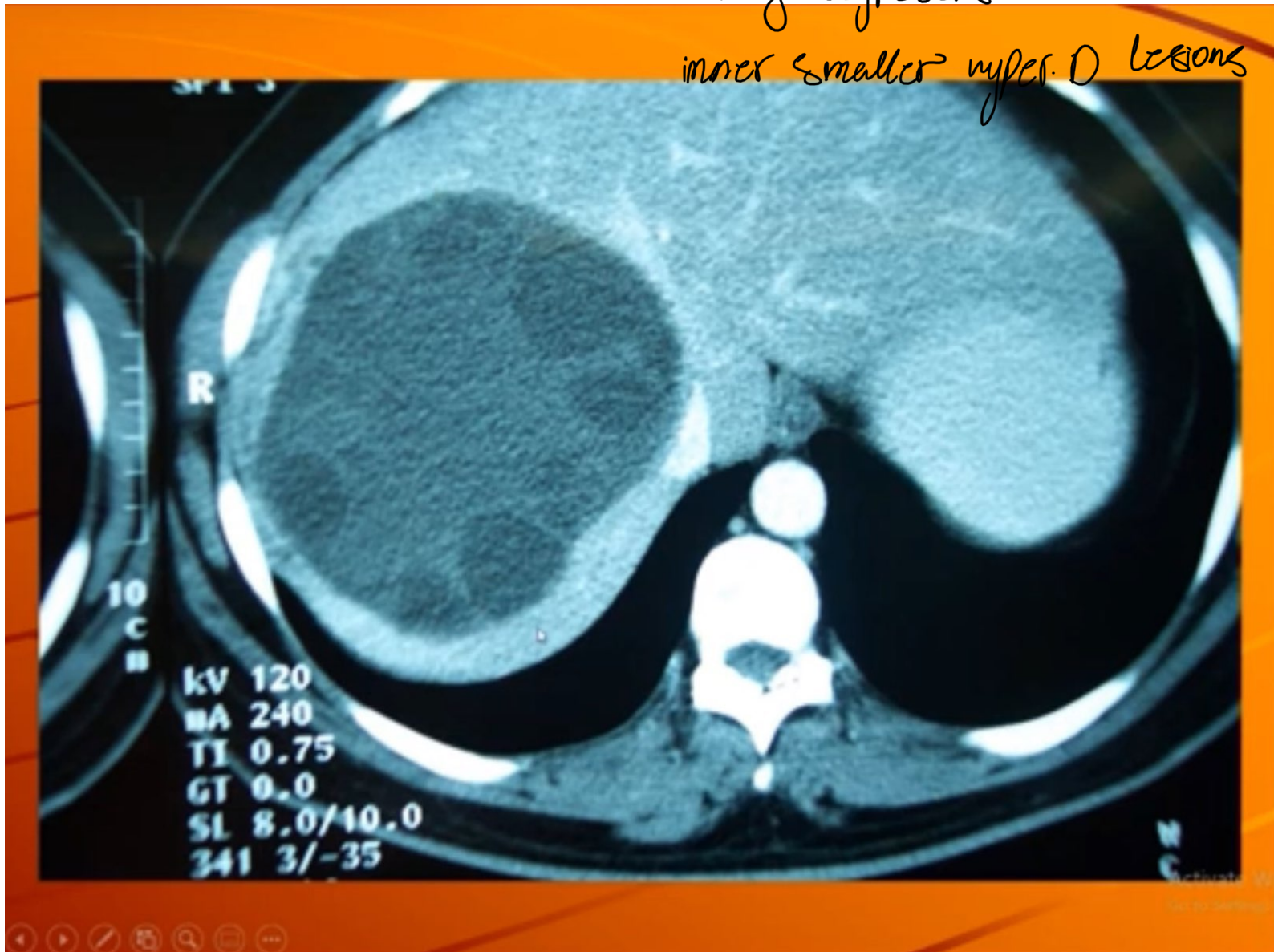


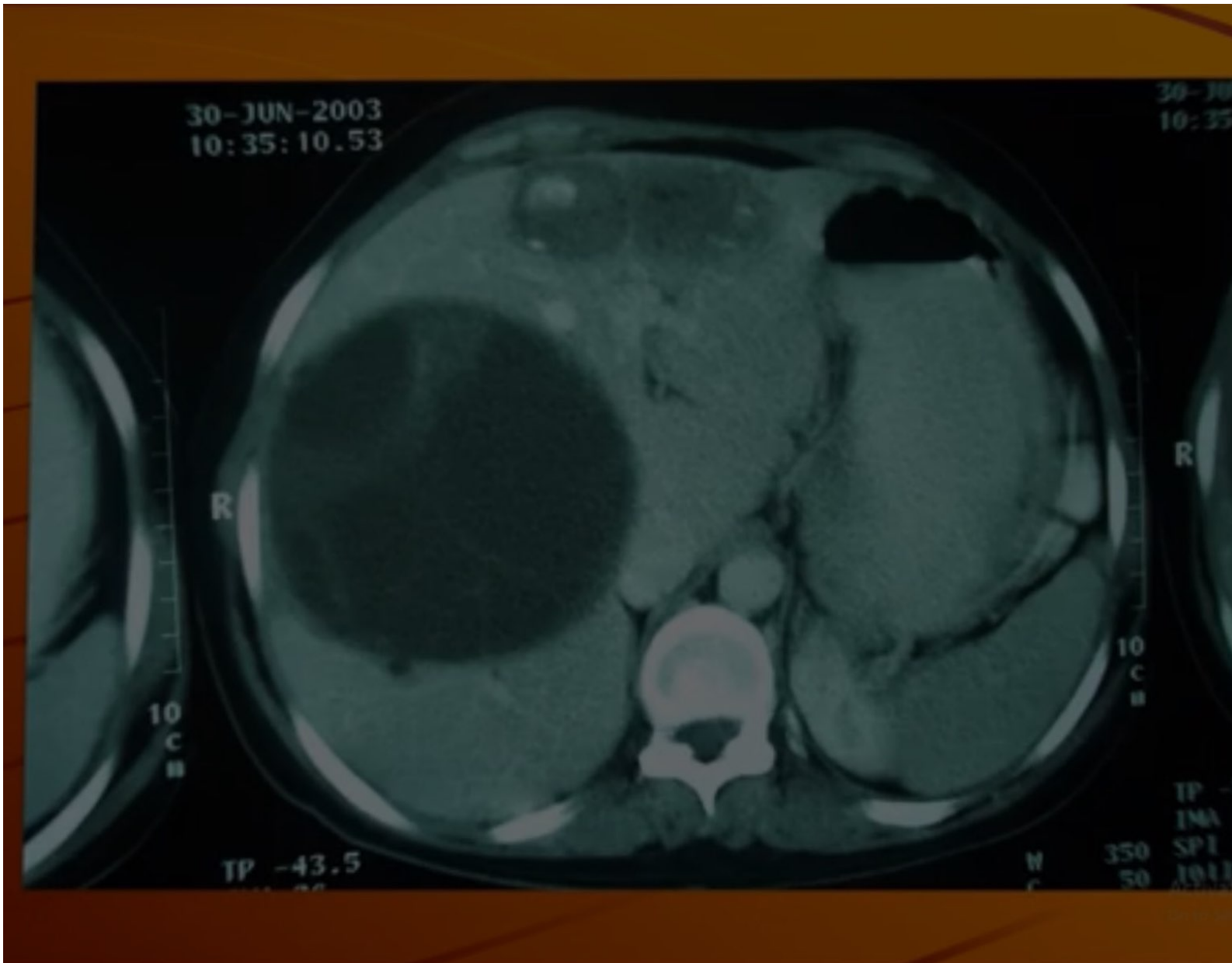
Scanned with CamScanner

CT

Big hypodense  
inner smaller hyper. D lesions

coop  
wheel  
Apparan





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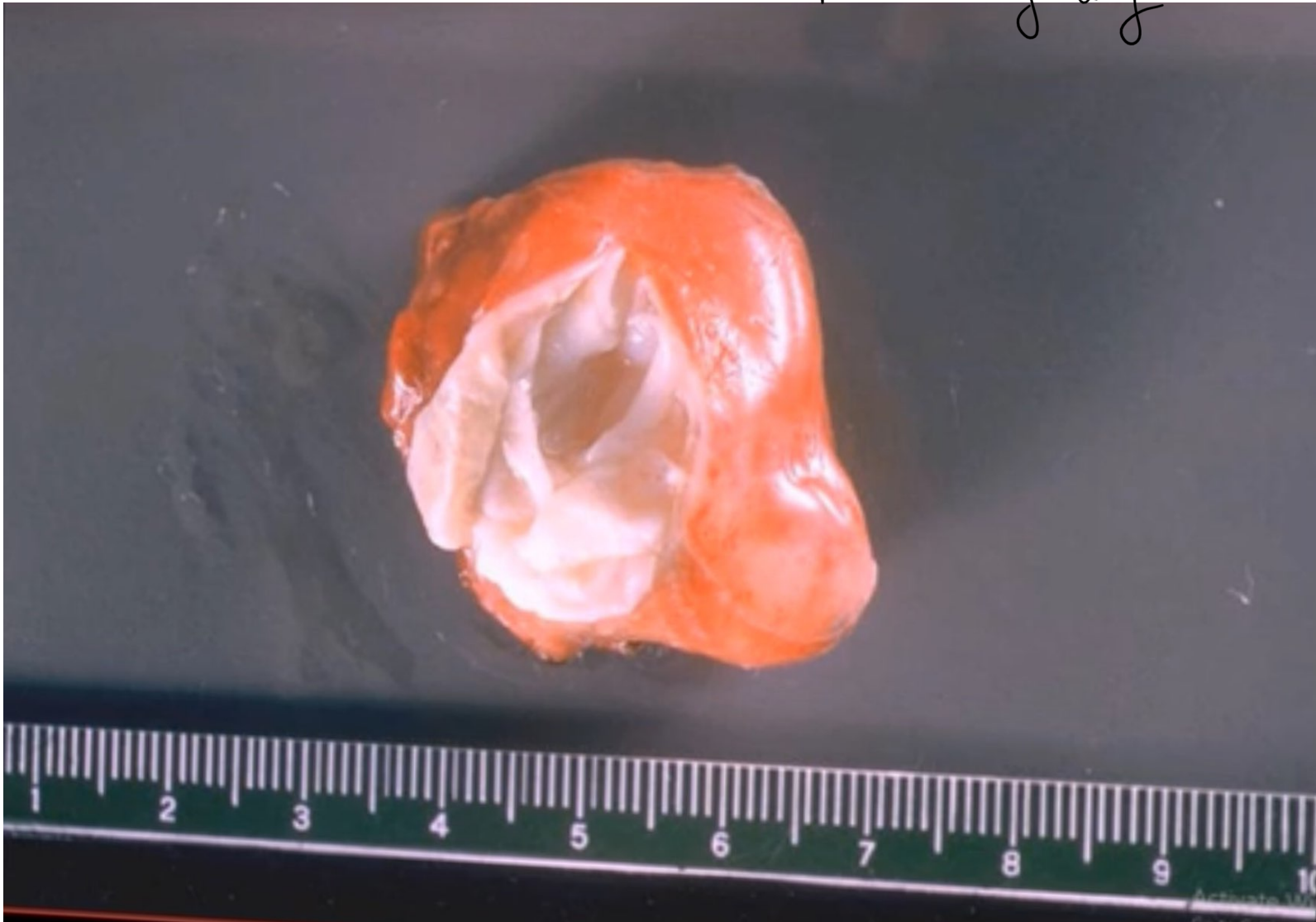


## DIAGNOSIS- IMMUNOLOGY

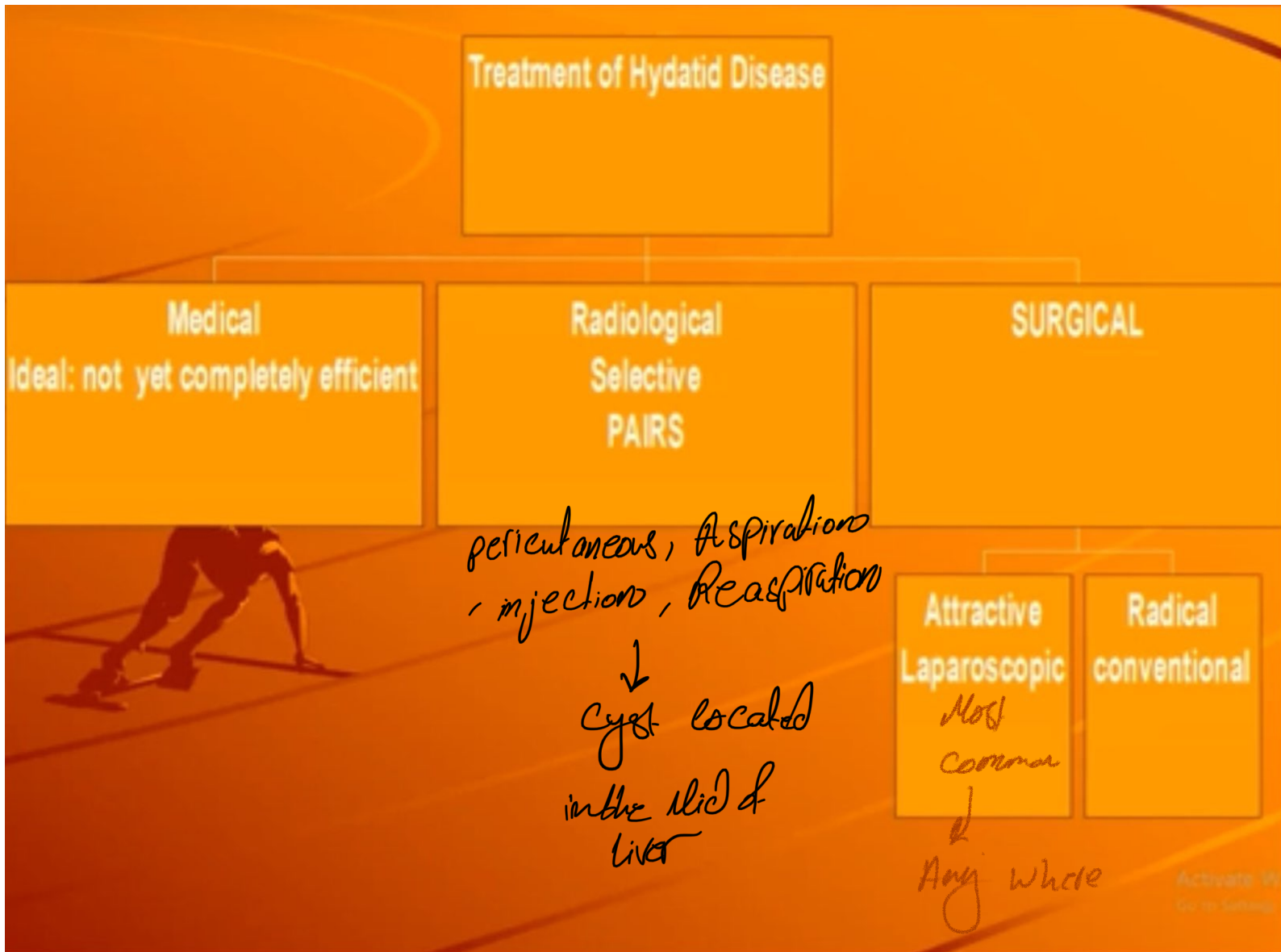
- ◆ IHA. → -ve not exclude
- ◆ CFT.
- ◆ LA.
- ◆ IEF.
- ◆ CIE.
- ◆ ELISA.

titrate Abs against  
granuloblasts

removed by lung



Scanned with CamScanner



## Medical treatment

- ◆ Antimony, Arsenic, Thymol derivatives, Iodides & Mercury.
- ◆ Mebendazole. *Anti helminthic Drug*
- ◆ **Albendazole**: 10-14mg/kg/day, three 28 courses separated by 2 weeks rest.
- ◆ Praziquantel. *Anti malarial*

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# Techniques used for PAIR

## 1. Percutaneous puncture:

- 18 g Seldinger needle
- aspirate 25-35% est. volume
- 15-25% NaCl = ~10% aspirated vol. injected. (kill in 5 min,)
- wait (10 min.) for pericyst separation
- reaspirate

2. Catheterization ~ as above

Case rate not more than 10%

## Percutaneous (PAIR) Tx of liver cysts

Akhan, Eur J Radiol 1999;32:76-85

### 1. Hydatid liver disease: 14 studies

- 13 studies (641 cysts) 1 Chinese study (996 cysts)
- 1,637 cysts in 1,000 pts
- instillation of alcohol or hypertonic saline
- f/u 1-3 years ( $\overline{1}$  yr)

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# 1. Liver hydatid disease: results

- **cure or significant change: 90-100%**
- **recurrence 0 - 4%**
- **complications: ~ 10%**
  - **biliary fistula: ~ 5-10% (7 studies)**
  - **fever, urticaria: 10-20%**
  - **cyst cavity infection: ~ 3%**
  - **death: 0.1 - 0.2%**

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Go to Settings to activate Windows.

## Laparoscopic

- ◆ Minimal invasive.
- ◆ Stands in the midway between PAIR&conventional surgery.
- ◆ Risk of spillage.
- ◆ Radicality?
- ◆ No enough randomized studies to come up with a conclusion.

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## Types of surgery

- ◆ Marsupialization.
- ◆ Cystectomy plus.
  - Pericystectomy- partial
  - Pericystectomy- subtotal.
  - Pericystectomy- Total.
- ◆ Resection: segmental, lobar, total+transplantation.

Activate Windows  
Go to Settings

## Remaining cavity

- ◆ Primary closure.
- ◆ Simple drainage.
- ◆ Capitonage.
- ◆ Introflexion.
- ◆ Omentoplasty.

*commonly used*

*hitting wall  
→ not used*

*rarely used*

*Most signi. method to reduce deep calculation*

## Follow-up

- ✦ **Clinically : OPD.**
- ✦ **Radiological : U/S, CT Scan.**
- ✦ **Serological: ELISA, IHA.**

