

UNIVERSIDAD AUTÓNOMA DE SAN LUIS POTOSÍ

FACULTAD DE CIENCIAS QUÍMICAS

Laboratorio de Microbiología

Case study: *Klebsiella Pneumoniae*

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Group: 11:00-12:00



Introduction

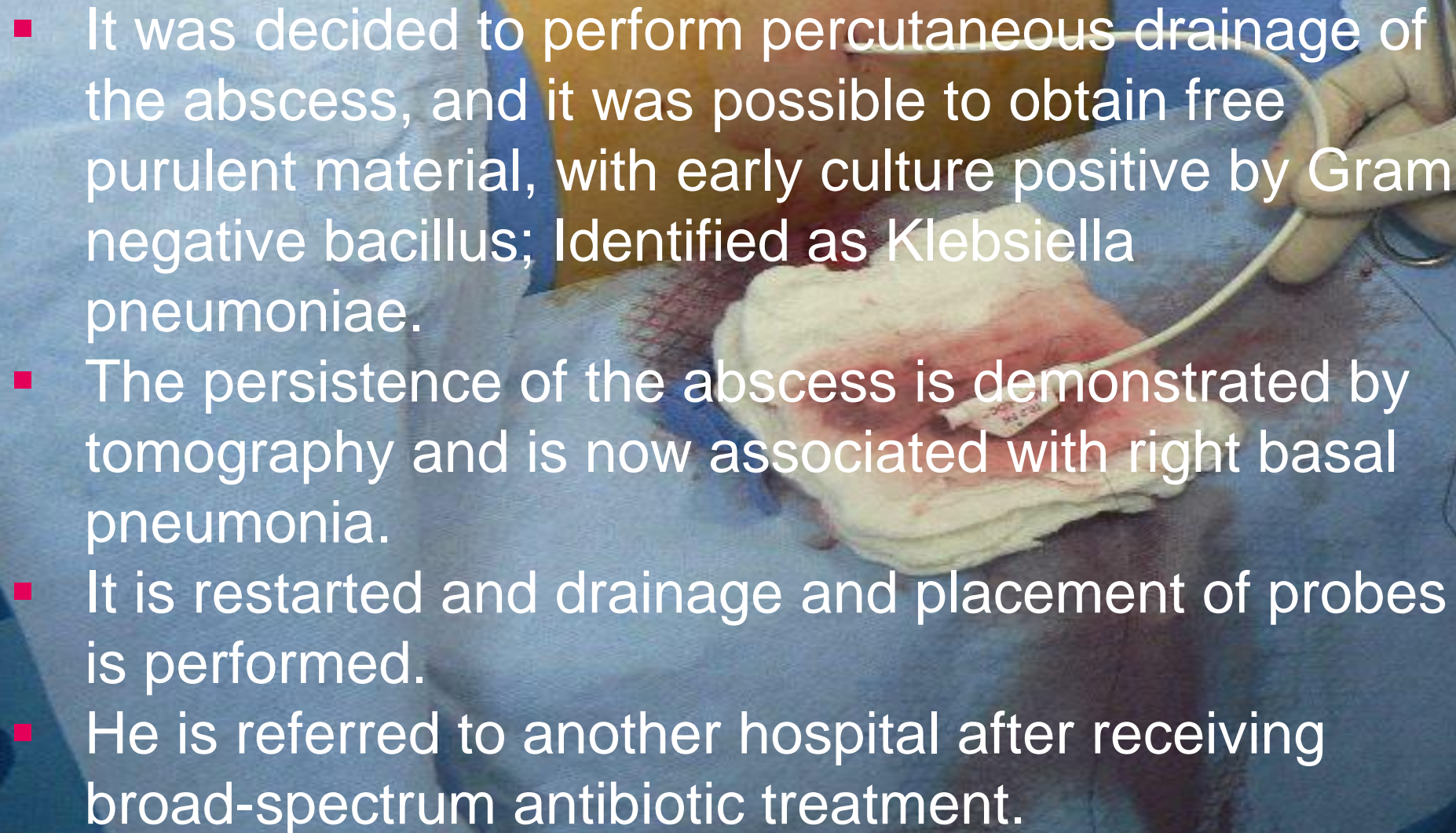
Pyogenic hepatic abscess is a condition frequently associated with alterations of the bile duct. The most commonly reported agent is *E. coli*, but polymicrobial infection including anaerobic germs is also common. However, secondary abscess to *K. pneumoniae* had been considered a rare entity .

Paciente

- ◉ Date received: May 8, 2012.
- ◉ Date accepted: August 23, 2012.
- ◉ A 16-year-old male patient, known to be healthy.
- ◉ Ultrasound of the abdomen was performed, which documented a single liver abscess in segment VII of the liver. Your condition deteriorates with hypotension.



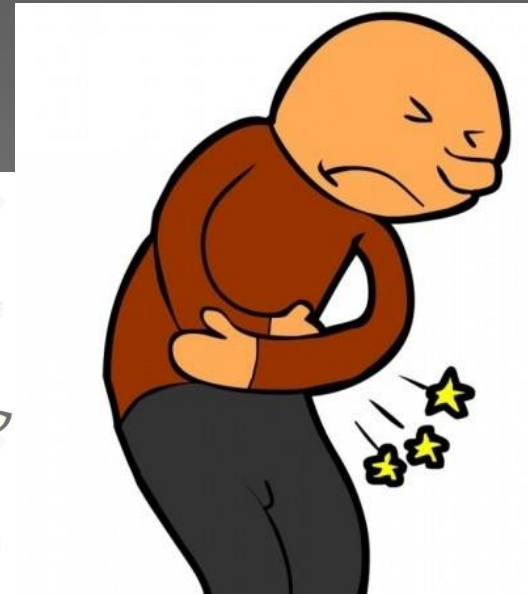
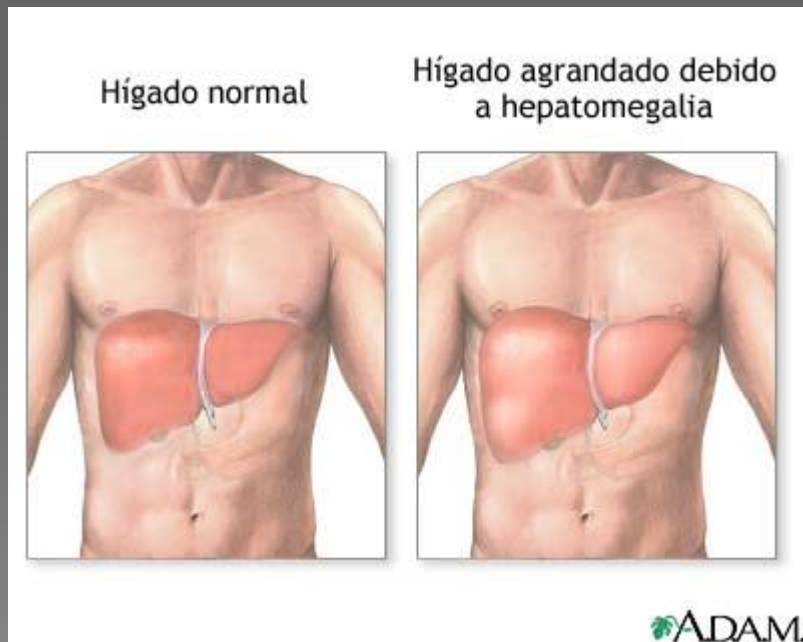
Process

- It was decided to perform percutaneous drainage of the abscess, and it was possible to obtain free purulent material, with early culture positive by Gram negative bacillus; Identified as *Klebsiella pneumoniae*.
 - The persistence of the abscess is demonstrated by tomography and is now associated with right basal pneumonia.
 - It is restarted and drainage and placement of probes is performed.
 - He is referred to another hospital after receiving broad-spectrum antibiotic treatment.
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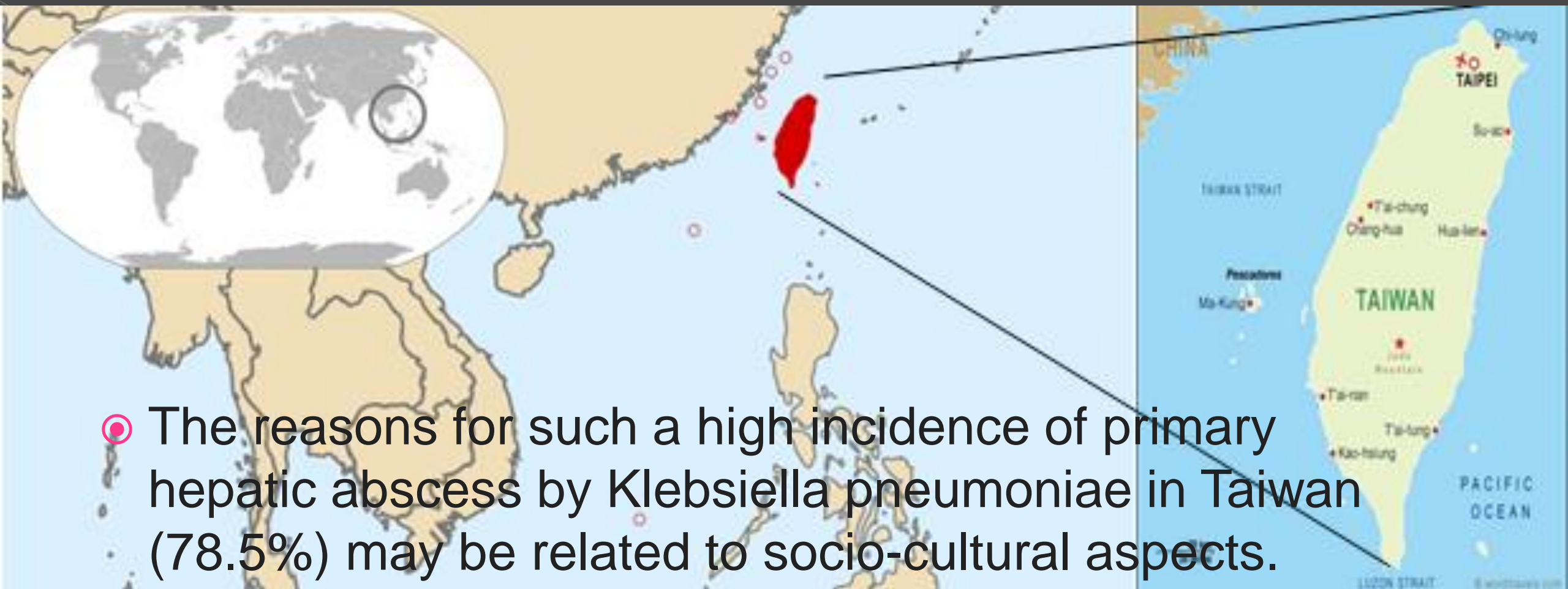
- A posterior intervention achieves closure of the abdominal cavity and non-surgical management of the pulmonary abscess is decided.
- Good clinical evolution and, when he manages to communicate, he does not have vision in the right eye.
- It continues to improve its general state, although the loss of vision in the right eye is definitive.

- The clinical manifestations present symptoms such as fever, chills, abdominal pain and hepatomegaly.
- A feature of *K. pneumoniae* infection is that it is complicated by septic metastases. * The sites involved are the skin, kidneys, lungs, central nervous system, and eyes.



*Diseminación de una infección desde una zona del organismo a otra.

- The presence of polysaccharides on the bacterial surface plays a role in their virulence and can spread through tissues.
- The intracellular presence of the bacteria in neutrophils has been demonstrated and its injection induces abscesses at multiple sites.
- Endogenous endophthalmitis is rarely caused by *K. pneumoniae*

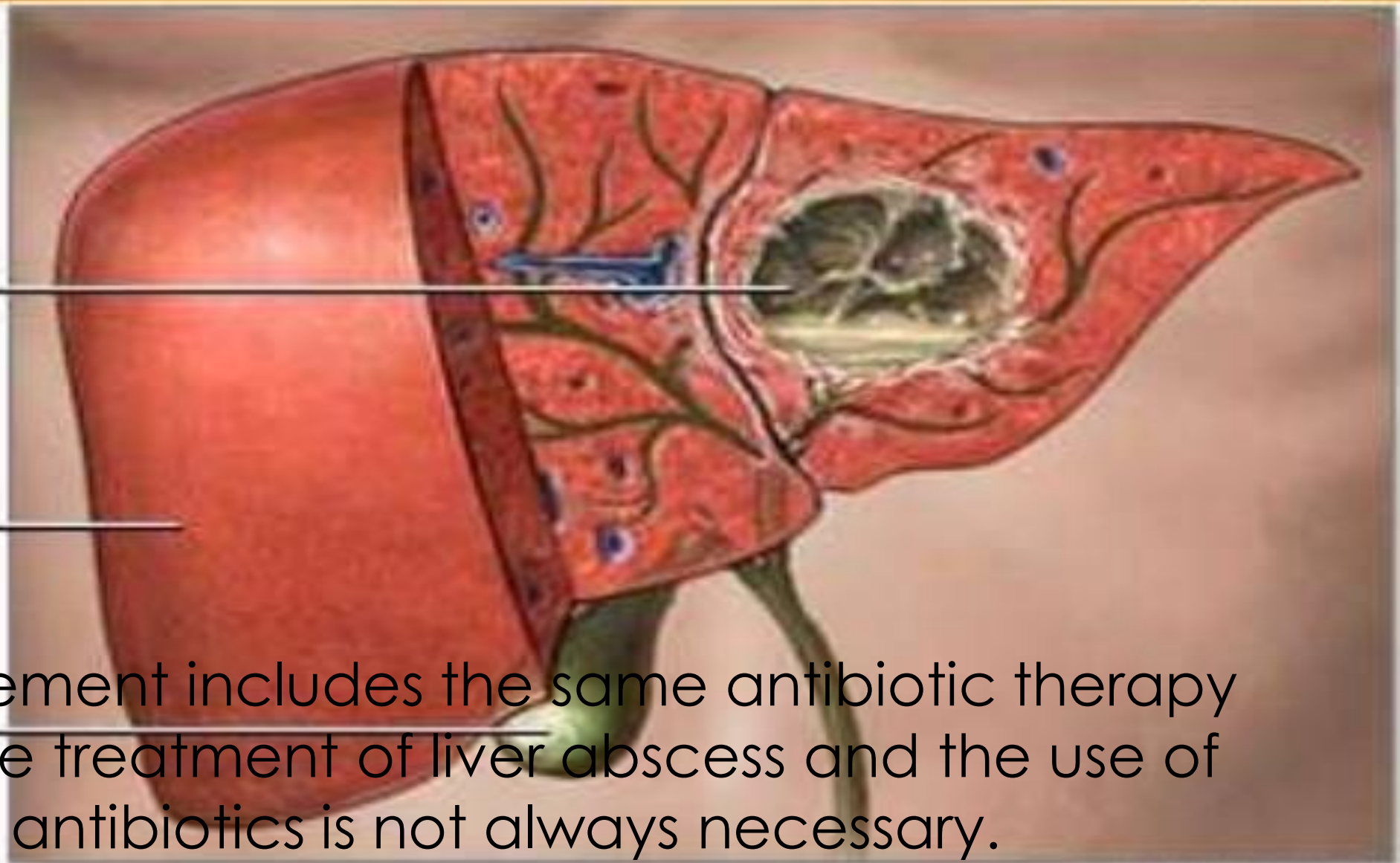


- The reasons for such a high incidence of primary hepatic abscess by *Klebsiella pneumoniae* in Taiwan (78.5%) may be related to socio-cultural aspects.
- At the moment there is only one report that includes liver abscess, pulmonary abscess and endophthalmitis by *Klebsiella*, in which no type of immunosuppression was also demonstrated.

To finish:

Absceso

Hígado



- Its management includes the same antibiotic therapy used for the treatment of liver abscess and the use of intravitreal antibiotics is not always necessary.

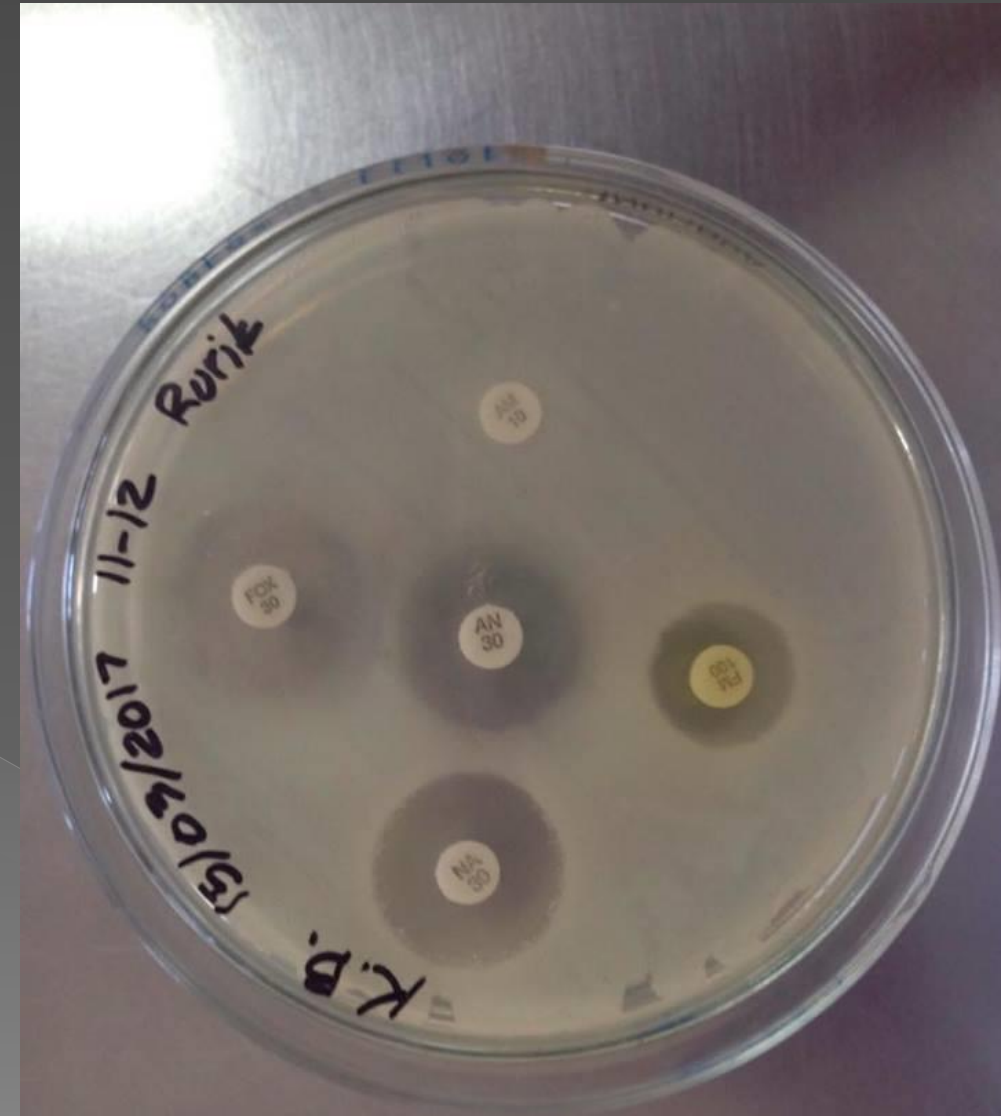
Biochemical activity

- Vogues Proskaur (+)
- Simmons Citrate (+)
- Hydrogen sulfide (-)
- Gas (+)
- Indol (-)
- Methyl red (-)
- Urea (+)
- Mobility (-)



Antibiograma:

- Cefoxitine=21 mm. Susceptible.
- Nalidix Acid=19 mm. Susceptible.
- Nitrofurantoin=14 mm. Intermediate.
- Amikacine= 19 mm. Susceptible.
- Ampicillin= 0 mm. Resistant.



Bibliography:

Absceso hepático asociado a absceso pulmonar y endoftalmitis

Liver abscess associated to lung abscess and endophthalmitis

Jairo Cordero-Chen,¹ Eduardo Catalán-Sánchez,² Juan Ignacio Padilla-Cuadra,³ Jorge Ramírez-Arce⁴

<http://www.scielo.sa.cr/pdf/amc/v55n1/art11v55n1.pdf>