

Right shoulder pain

Clinical Case Presentation

ESIM 2011 Saas-Fee

Switzerland Case no 2

The patient

- Female, 29 years old
- Portuguese origin, living in Switzerland since childhood, frequent trips to Portugal
- House keeper
- Past medical history: good health, delivery 4 month ago, no complication
- Breastfeeding

At presentation

- Invalidant continuous right shoulder pain for 1 month prior to admission, no stiffness, no swelling, no trauma
- Fever since 1 week, $>38^{\circ}$, night sweats, nausea
- No weight loss, no vomiting
- No coughing, no dyspnea
- No other complaint

Physical examination

- BP 125/80mmHg, P 85/mn, SaO₂: 99% AA, respiration rate 18/mn, T° 38.4°
- No adenopathy
- Right shoulder: comes with a scarf, no warmth, no swelling, no redness, no limitation of range of motion
- Abdomen: soft, tender on right upper quadrant, no sign of peritonism, no organomegaly, normal sounds
- Rest: unremarkable

Differential diagnosis?

Laboratory studies

<u>Complete blood count</u>	
Hemoglobin (120-160 g/l)	128 g/l
Leucocyte count	12.1 G/l, no left deviation, normal rep
Platelet count	361 G/l
<u>Coagulation studies</u>	Normal
<u>Chemical studies</u>	
CRP (0-10 mg/l)	230 mg/l
Electrolytes and renal function	Normal
Procalcitonine (<0.25ug/l)	0.09 ug/l
Liver and pancreatic enzymes	Normal
<u>Urinalysis</u>	Normal

- Does it change your diagnosis?
- What would you do next?

Abdominal ultrasound



- Hypoechogenic lesion
- Hyperechogenic mass inside

- Differential diagnosis?

Abdominal CT scan



Back to anamnesis

- Contact with animals in Portugal in her parent's farm

Bacteriology

- Abscess puncture: thick green liquid
- Standard cultures: negative
- Parasites search: negative
- Blood cultures: negative

- Spot TB: negative
- HIV negative

Serologies

Date du pvt. : 08.06.10 06:00
 Recu le : 09.06.10 09:13
 Résultats sortis: 09.06.10 17:13

SEROLOGIE	RESULTATS	NORMES	UNITES
Amibiase: ELISA Interprétation: négative	0.00	< 0.40	OD

Immundiagnostische Untersuchungen auf **Echinokokkose** (zystische und alveoläre Echinokokkose)

Antikörpernachweis / Resultate

E. granulosus (zystische Echinokokkose)

ELISA, EgHF-Antigen Antikörpereinheiten

E. multilocularis (alveoläre Echinokokkose)

ELISA, Em2-Antigen Antikörpereinheiten

ELISA, II/3-10-Antigen (neu: Em18*¹⁾) Antikörpereinheiten

ELISA, Em2^{nm}-Antigen*²⁾ Antikörpereinheiten

RESULTATINTERPRETATION

- keine spezifischen Antikörper gegen *Echinococcus* spp. nachweisbar
- Antikörperreaktion mit unspezifischen Antigenen wahrscheinlich (evtl. Kreuzreaktion)
- Nachgewiesene Antikörper sprechen für das Vorliegen einer zystischen Echinokokkose
- Nachgewiesene Antikörper sprechen für das Vorliegen einer alveolären Echinokokkose
- Follow-up / "Therapie- Follow-up"

Diagnosis

•SEROLOGIE DE LA BRUCELLOSE

Prélèvement : 01.06.2010 Sérum ou Plasma 11h 30

Ac anti-Brucella IgG

320

Ac anti-Brucella IgM

Négatif

Réactif : IFI Laboratoire CERBA

Profil sérologique compatible avec une brucellose.

A interpréter en fonction du contexte clinique et épidémiologique.

A contrôler sur un nouveau prélèvement pour suivre la cinétique des anticorps.

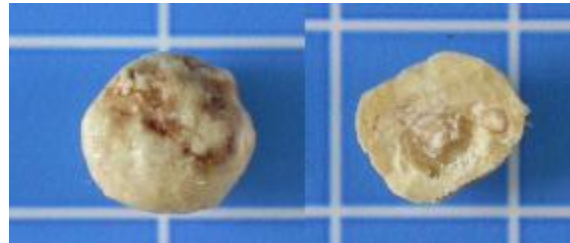
PCR of the abcess's liquid:

Amplification Bactérie, par broad-range PCR	
Amplification Brucella sp (melitensis, suis, canis, abortus), par PCR	PRES
Culture Flacon anaérobie	

Treatment

- Surgery: aspiration of the liquid, resection of the calcic concretion
- Antibiotics: rifampicine and doxycycline 2 months
- No relapse at 6 months

Pathology



Calcic concretion: compact calcified eosinophilic material, acellular

No pathogen on PAS, Gram or Grocott coloration

Brucella

- Coccobacillus gram – facultative, intracellular
- Melitensis, abortus, suis, canis
- Transmission: contact with animals, non pasteurised milk, urine...
- NO interhuman (except trans-placental and breastfeeding)

- FUO, night sweats, anorexia, arthralgias, asthenia, weight loss, depression

- Acute or insidious

Manifestations

Art: 20-30% sacro-ileitis

Gen-U: orchi-epididymitis → 40% M

CNS: meningitis, epidural abscess

Endocarditis: 1%, left sided

Splenic or liver abscess

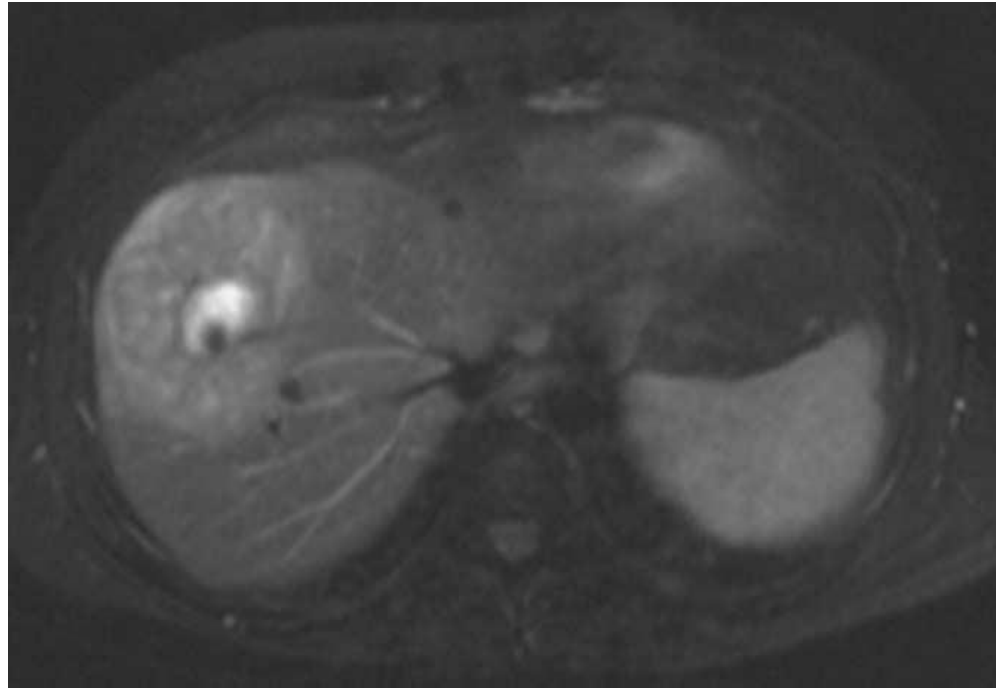
Pneumonia, empyema

Uveitis

Diagnosis

- Culture: slow, difficult → specify!
- Serology
- PCR (TB → false +!)

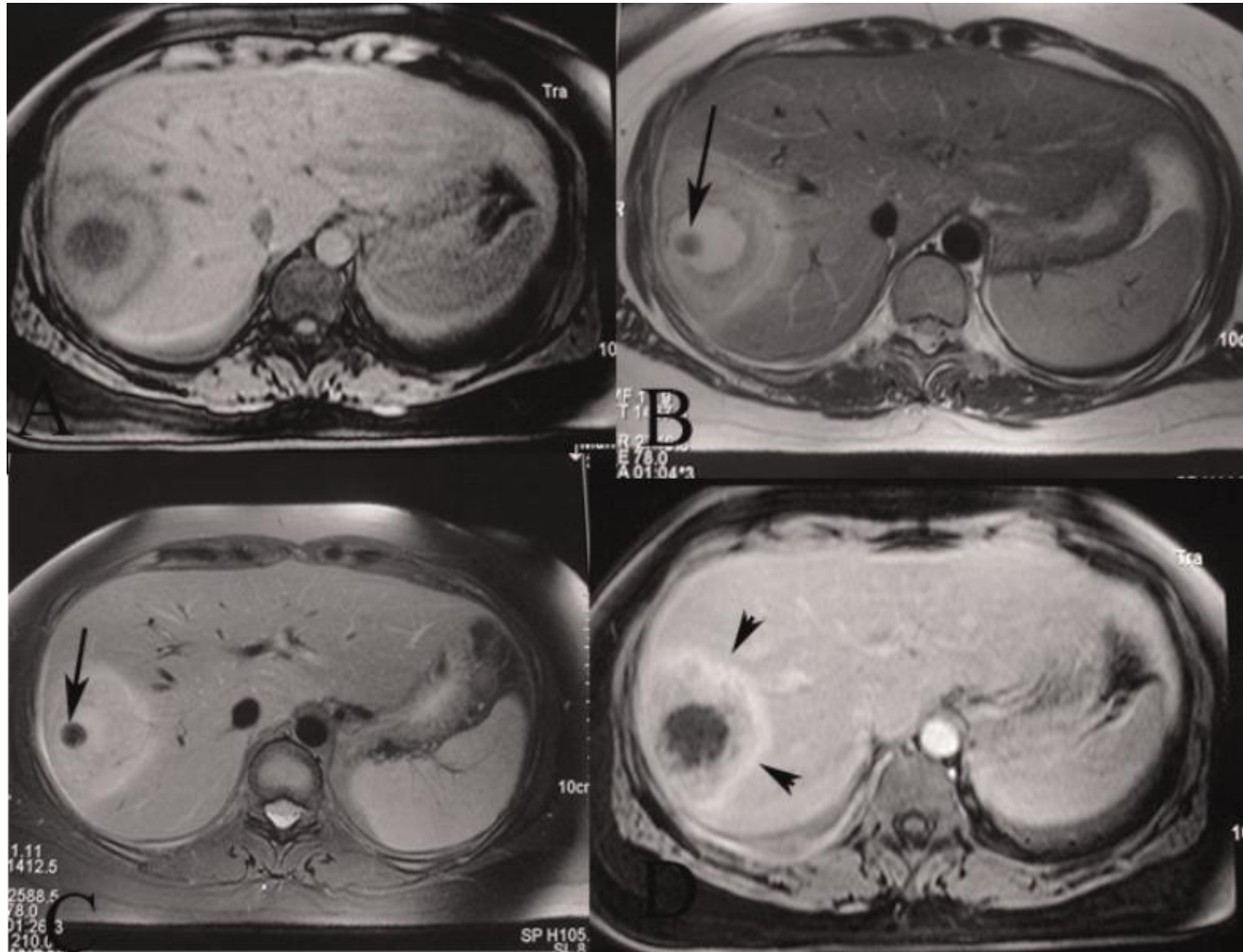
Brucelloma



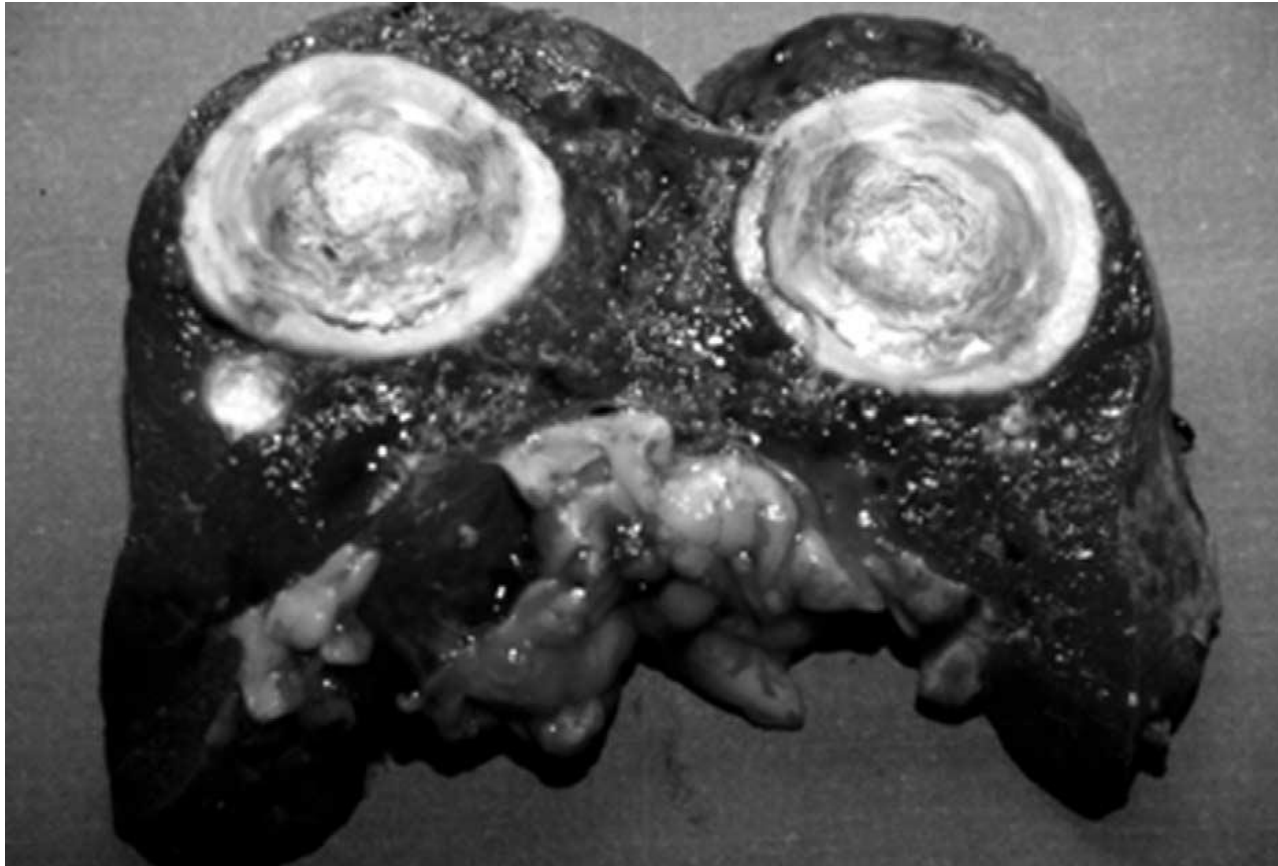
Pathognomonic image on CT scan and MRI (T2 STIR)

MRI

(Danai Chourmouzi et al Cases Journal 2009, 2:7143)



Surgical resection of a spleen



J. D. Colmenero et al. / Diagnostic Microbiology and Infectious Disease 42 (2002) 159–167

Treatment

Chronic hepatosplenic abscesses in brucellosis. Clinico-therapeutic features and molecular diagnostic approach

Juan de Dios Colmenero^{a,*}, Maria Isabel Queipo-Ortuño^b, José Maria Reguera^a, Miguel Angel Suarez-Muñoz^c, Segundo Martín-Carballino^d, Pilar Morata^b

^a*Infectious Diseases Unit, Department of Internal Medicine, Carlos Haya University Hospital, Málaga, Spain*

^b*Department of Biochemistry and Molecular Biology, Faculty of Medicine, University Hospital, Málaga, Spain*

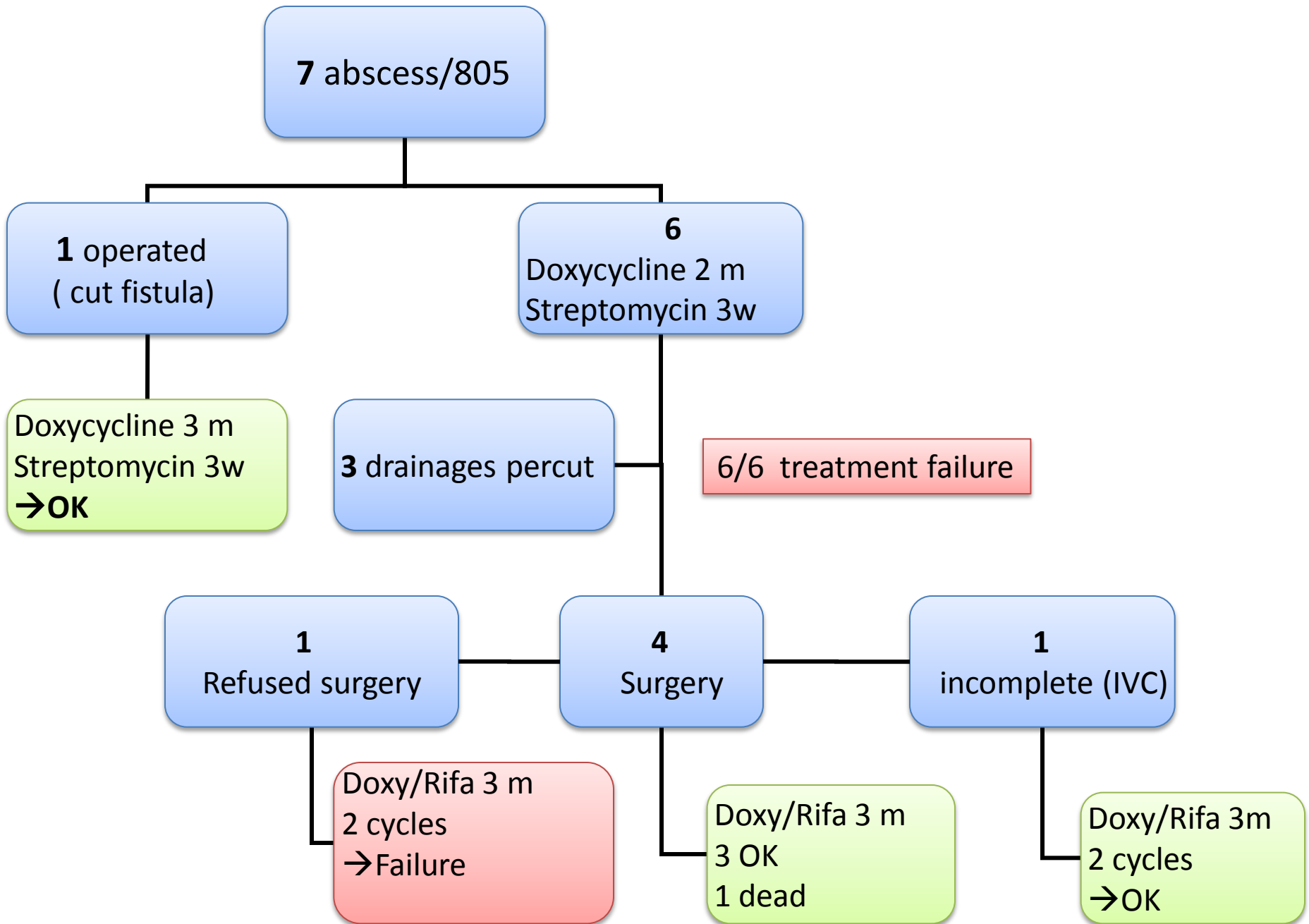
^c*Department of Surgery, Carlos Haya University Hospital, Málaga, Spain*

^d*Pathology Service, "Carlos Haya" University Hospital, Málaga, Spain*

J. D. Colmenero et al. / Diagnostic Microbiology and Infectious Disease 42 (2002) 159–167

Retrospective, 805 patients/brucella, 1982-2000

7/805 liver or splenic abscess



Medical literature

- Uncommon: 1.7% of brucellosis
(Ariza et al Clin Infect Dis 2001;32:1024–33)
- 43 case reports between 1904→2009
(Danai Chourmouzi et al Cases Journal 2009, 2:7143)
- Treatment: low evidence! Showing that excision of the calcic concretion avoids relapse

Take home messages

- A right shoulder pain might be an irradiation
- Liver enzymes can be normal in case of a liver abscess
- Procalcitonine has a low sensitivity to diagnose an abscess
- Brucelloma has a pathognomonic radiologic presentation
- Brucella can be transmitted through breastfeeding, and the baby should be checked
- Medical treatment of brucelloma is prone to relapse without concomitant surgery