

A RARE CASE OF
SEPTIC SHOCK
SECONDARY TO
PRIMARY STERNOCLAVICULAR JOINT
SEPTIC ARTHRITIS

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&

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TAKE HOME MESSAGES

1. SCJ Septic Arthritis can be a **difficult diagnosis**

i) Vague Sx (shoulder/neck /upper chest pain)

ii) Slow-onset

Consider unilateral SC joint pain as infection until proven otherwise

2. SCJ Septic Arthritis can **occur in healthy people**

3. SCJ Septic Arthritis can **cause serious complications including septic shock**

As opposed to the more common scenario of septicaemia causing SCJ septic arthritis

SO DON'T MISS THE DIAGNOSIS!

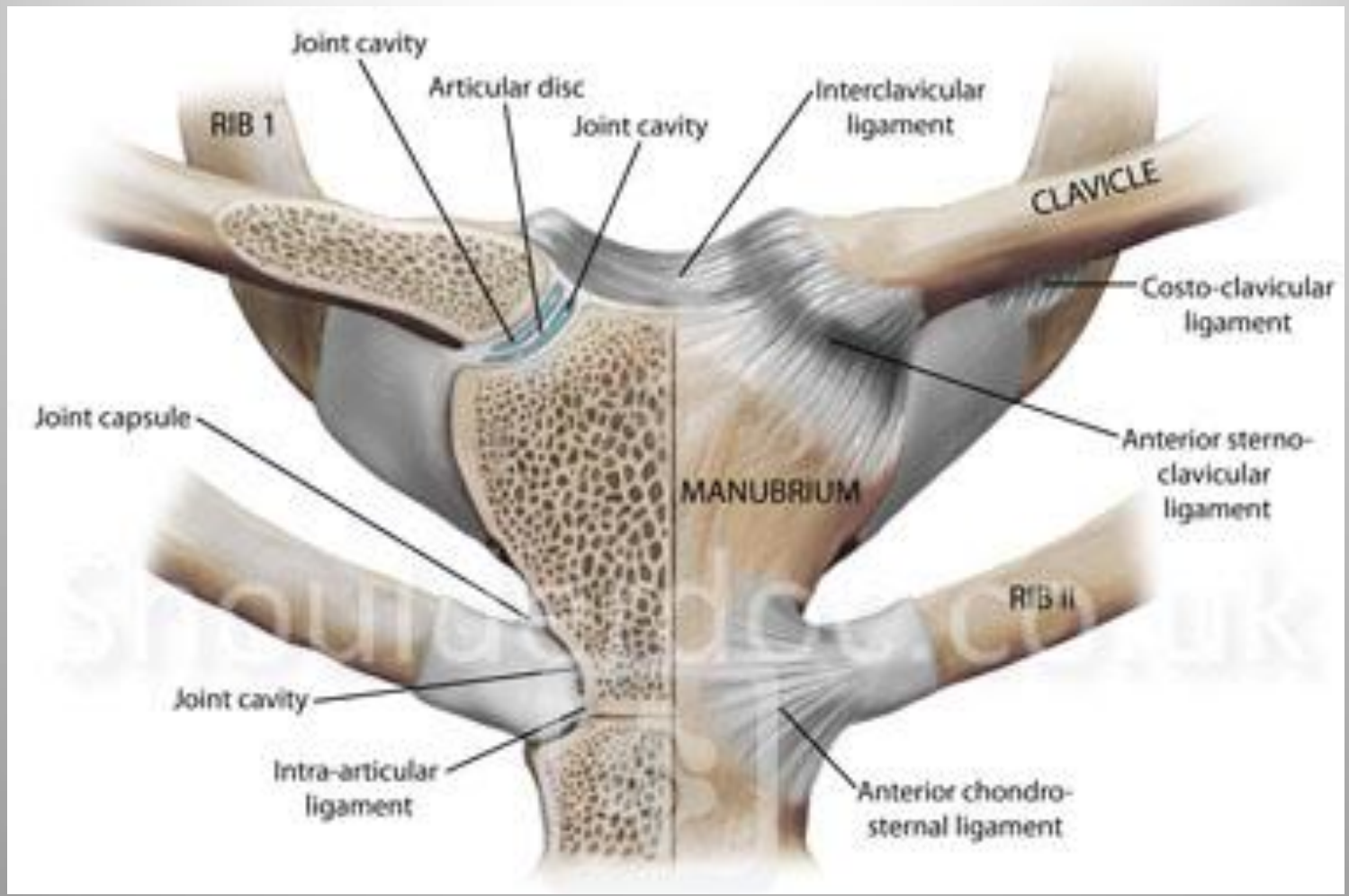
**SOME
BACKGROUND**

SEPTIC ARTHRITIS IN GENERAL

- Septic arthritis is a medical emergency, with a mortality rate of 10% (Gupta et al 2001)
- Even after treatment of septic arthritis, considerable morbidity (amputation, lost of joint function) affects one-third of patients. (Kaandorp et al, 1997)

SEPTIC ARTHRITIS OF THE SC JOINT

- Accounts for only 1% of all septic arthritis in the general population
 - IV drug users: Up to 17%
 - Healthy individuals: Less than 0.5% in
(Rose et al, 2012, Ross & Shamsuddin, 2004)
- Incidence will probably rise as incidence of diabetes and neoplasms rises
(Bodker et al 2013)



Courtesy of shoulderdoc.co.uk

HISTORY

63 year-old female

Admitted with severe Staphylococcus Aureus septicaemia of unknown source

PMHX

- Alcohol-induced liver cirrhosis (10 years one bottle of wine daily) BUT Had stopped drinking 7 months prior to her initial admission
Last LFTs 7 months prior to admission:
Bilirubin=**48**, ALP= 96 ALT=**42** Albumin=**34**.
Had shown no previous signs of immunocompromise.
- HTN
- IHD, MI Previously

SHX

- Lives with her husband and son
- Ex-smoker

ONLY INITIAL SYMPTOMS:

- Fever
- Confusion
- Vague left clavicle pain

INVESTIGATIONS:

- High Inflammatory markers WCC= 24.7 CRP=257
- Blood Cultures: Staph. Aureus
- TOE no endocarditis
- CT CAP: 9/11 Atelectasis Rt. Lung lower zone & small sided pleural effusion.

TREATMENT:

Treated with multiple antibiotics.

Clarithromycin & Augmentin, Flucloxacillin, Clindamycin, Gentamicin, Vancomycin

NORMAL IMAGING OF CLAVICLE REGION



WENT TO ITU:

- Septic shock
- Acidosis
- Acute renal failure (Urea = 14.7)
- Acute liver failure (At worse: Bilirubin 119, ALP 270, ALT 72 Alb 21)

ON DISCHARGE FROM ITU:

- Developed a tender left SCJ swelling

Aspiration:

- 4mls blood-stained fluid
- Grew no organisms

OVER NEXT 3 MONTHS:

- 2 recurrences of SCJ swelling
- Both Tx with Flucloxacillin & Benzylpenicillin

RE-PRESENTS 3 MONTHS LATER

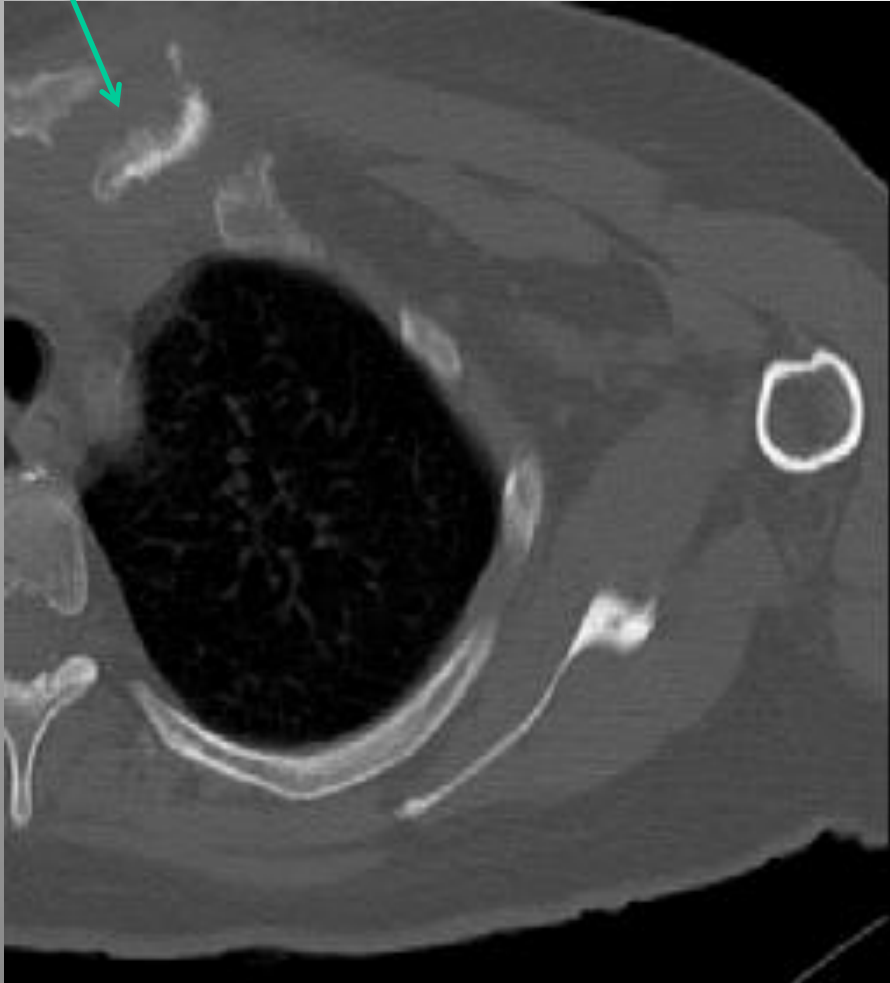
- Red, hot tender Left SCJ
- Apyrexial
- Shoulder ROM reduced

- WBC 6.5 CRP 35

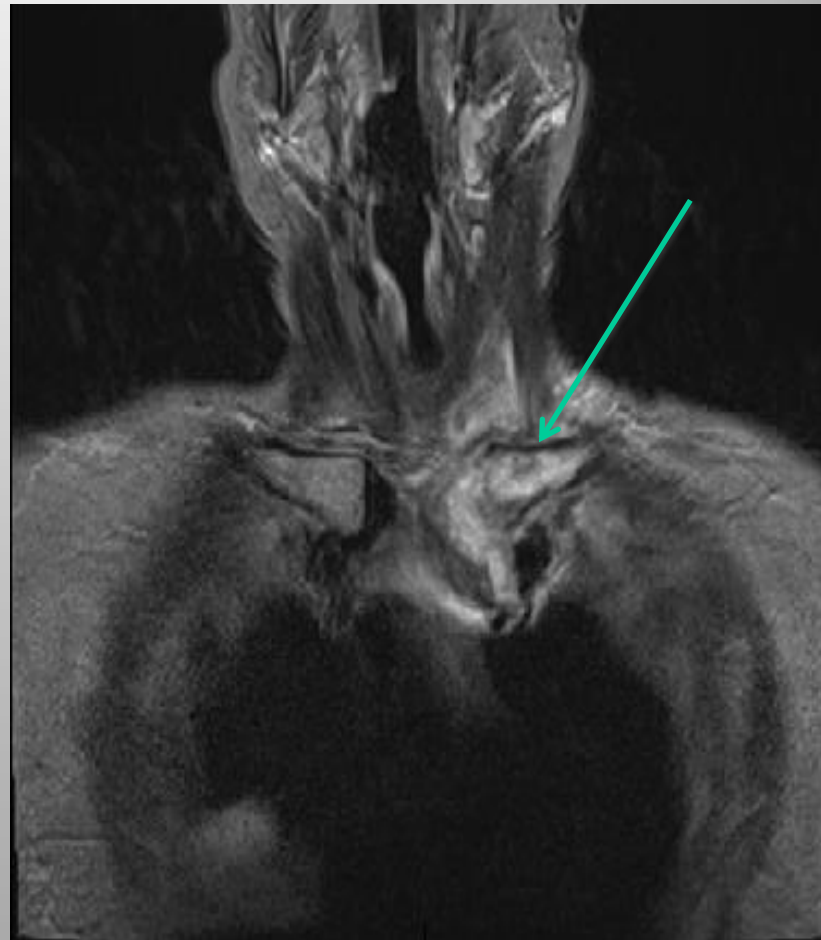
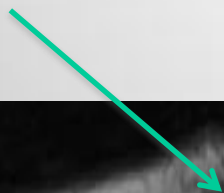
- SCJ aspiration:
 - 1 ml purulent fluid
 - Staph. Aureus: The same organism that had caused the septicaemia 3 months previous

Hence, it was concluded that primary SCJ septic arthritis had caused the previous severe septicaemia of unknown source

CT SCAN



MRI SCAN



OUTCOME

- On Ceftriaxone and Fusidate (not for surgery)
- Developed progressive proximal muscle weakness (CK 9061) & renal failure & worsening LFTs:
(Alb 16, Bilirubin 75, ALP 203, ALT 1315)
- Eventually sadly died about 2 months later
Cause of death: Ischaemic bowel disease

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TAKE HOME MESSAGE 2:

SCJ Septic Arthritis can occur in healthy people

COMMONEST CAUSES OF SCJ SEPTIC ARTHRITIS

- IV drug use (21%)
- Distant site of infection (15%) (e.g. UTI, URTI)
- Diabetes mellitus (13%)
- Trauma (12%)
- Thoracic central venous line (CVL) placement (9%)

BUT IT CAN OCCUR IN PREVIOUSLY HEALTHY PEOPLE

- No Risk Factor found in 23%

Ross & Shamsuddin H. Sternoclavicular Septic Arthritis: review of 180 cases. *Medicine*. 2004;83:139–148

- *“Its presence in a healthy individual is rarely reported.”*

Womack, 2012

TAKE HOME MESSAGE 3:

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