

日期      \_101\_年\_09\_月\_29\_日

內容摘要：

- (填寫說明：1. 如有附件請註明，如簡報檔、全文檔等  
2. 需有問題與討論：請註明姓名並包含醫學倫理及 EBM 之應用  
3. 需有總結，請註明做結論者【主持人】姓名  
4. 請自行編排頁碼)

時間：101/09/29

地點：B2 同心園會議室

主持人：陳振德主任

紀錄：R4 朱健銘

<TOPIC>

Trauma radiology of solid organ damage

<Q&A>

Q1CR 林逸婷：What is trauma 3 view?

A1R1 林吉倡：Chest X-ray, C-spine lateral view, pelvic x-ray

Q2CR 林逸婷：怎麼選擇開刀或 angiography?

A2R1 林吉倡：unstable → 開刀, 血壓穩定 → angiography 止血

Q3CR 林逸婷：怎麼看出血

A3R1 陳穎玲：non-contrast CT: hyperdense lesion,  
contrast CT: contrast extravasation

Q4CR 林逸婷：liver laceration grading?

A4R1 陳穎玲：Grade I: subcapsule hematoma < 10% surface area,  
laceration < 1cm depth

Grade II: subcapsule hematoma 10-50% surface area,  
intraparenchymal < 10cm, laceration 1-3cm depth,  
< 10cm length

Grade III: haematoma : sub capsular, > 50% surface area,  
or ruptured with active bleeding,

haematoma : intraparenchymal > 10 cm diameter,  
laceration : capsular tear, > 3 cm depth

Grade IV: haematoma : ruptured intraparenchymal with  
active bleeding, laceration : parenchymal distruption  
involving 25 - 75% hepatic lobes or 1-3 couinaud segment  
(within one lobe)

Grade V: laceration : parenchymal distruption involving  
> 75% hepatic lobe or > 3 couinaud segment (within one  
lobe), vascular : juxtahepatic venous injuries (IVC, major  
hepatic vein)

Grade VI: vascular : hepatic avulsion.

內容摘要 (續):

Q5CR 林逸婷: management of liver laceration

A5R1 陳穎玲: **grade I/II**: conservative treatment, **grade III**: equivocal, **grade IV-VI**: surgical intervention

Q6CR 林逸婷: spleen laceration grading

A6R2 羅志威: **grade I**: subcapsular haematoma < 10% of surface area, capsular laceration < 1 cm depth  
**grade II**: subcapsular haematoma 10 - 50% of surface area, intraparenchymal haematoma < 5 cm in diameter, laceration 1 - 3 cm depth not involving trabecular vessels.  
**grade III**: subcapsular haematoma > 50% of surface area or expanding, intraparenchymal haematoma > 5 cm or expanding, laceration > 3 cm depth or involving trabecular vessels, ruptured subcapsular or parenchymal haematoma  
**grade IV**: laceration involving segmental or hilar vessels with major devascularization (> 25% of spleen)  
**grade V**: shattered spleen, hilar vascular injury with devascularised spleen

Q7CR 林逸婷: management of spleen laceration

A7R2 羅志威: unstable 就應該手術, stable 病人 **grade I/II** 可保守治療, **grade III** 以上考慮手術或栓塞

Q8CR 林逸婷: renal injury grading

A8R2 羅志威: **grade I** : contusion or non enlarging subcapsular haematoma, but no laceration ;  
**grade II** : superficial laceration < 1cm depth and does not involve the collecting system ; non expanding perirenal haematoma  
**grade III** : laceration > 1cm, without extension into the renal pelvis or collecting system and with no evidence of urine extravasation  
**grade IV** : laceration extends to renal pelvis or urinary extravasation.  
**grade V** : shattered kidney ; devascularisation of kidney due to hilar injury.

Q9CR 林逸婷: 何種狀況可考慮栓塞

A9R3 周光緯: pelvic retroperitonium, gluteal area, axillary area, kidney, spleen, liver injury

內容摘要 (續):

Q10CR 林逸婷: TAE 的禁忌症?

A10R3 周光緯: unstable hemodynamics, hollow organ damage, metabolic acidosis, DIC, sepsis, peritonitis, allergy to contrast

<Ethics and EBM>:

Q: successful rate of hepatic TAE in hemodynamic stable patient?

R3 周光緯 A: about 88%

<key points>

1. liver and spleen injury grading 要記得
2. unstable patient 就應考慮剖腹探查
3. stable patient 內出血可考慮手術及血管攝影

<VS comments>

1. 外傷+休克→考慮內出血
2. ACLS 的 primary survey 要做好, 如果病人有變化就應重新 survey
3. FAST 只能看到 free fluid, 對 solid organ injury 評估較差且 operator dependent

紀錄: R4 朱健銘