實證醫學病例討論報告

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臨床場景(clinical scenario)

1~病人基本資料及主訴
2~診斷（包含理學檢查、實驗室檢查、影像學檢查）
3~治療方式及對治療的反應
4~後續治療計畫

Patient Profile (1)-General data

- Name: 梁X庭
- Gender: male
- Age: 62 years old
- Chart number: 13090466
- Admission date: 2012/10/03

- CC: Acute onset epigastric pain for 2 days

- PI:
- This 62-year-old man had history of acute pancreatitis 20+ years ago.
- According to the patient, he had intermittent epigastralgia noted recently since August.
- Character: dullness pain, onset: post prandial; aggravating factor: -. Associated symptoms and signs: poor appetite(+), body weight loss(-), fever(-), nausea (-), vomiting (-), diarrhea (-), clay-colored stool (-), tarry stool (-), constipation (-), tea-colored urine(-)

- Due to the above problems, he had visited our ER in August and abdominal CT showed distended gall bladder with cholelithiasis, suggested cholelithiasis with chronic cholecystitis.

- abdominal CT revealed
- 1) Cholelithiasis in the gallbladder and cystic duct. Superimposed acute cholecystitis.
- Please correlate with clinical presentation.
- 2) A small cyst in S6 of the liver.
- 3) Right renal cyst, Bosniak classification category I.
- 4) Prostate enlargement.
- 5) Fibrosis/subsegmental atelectasis in the left lingular lobe and right lower lobe of the lungs.
- 6) Atherosclerosis of the abdominal aorta and bilateral common iliac arteries.
- Thus, he was admitted to our ward for laparoscopic cholecystectomy.

Patient Profile (2)-Past history

- DM: denied
- HTN: denied
- Surgery history: nil
- Cigarette Smoking : denied
- Alcohol : social use

- Diagnosis:
- Cholelithiasis with acute cholecystitis

- Plan:
- Laparoscopic cholecystectomy

Anesthetic course

- Induction:
  - Propofol 150mg + 2% lidocaine 60mg iv
  - Patient complained pain during propofol injection
  - Cisatracurium 10mg iv
- Maintain:
  - Sevoflurane 2.4%-3.3%
- Post-OP pain control:
  - Demerol 40mg iv

提出 background questions

Question :

- Advantages laparoscopic cholecystectomy compared with open cholecystectomy
- Much smaller incisions
- Decreased postoperative pain
- Shorter hospital stays

- From:Clinical Anesthesiology

提出 foreground questions

Laparoscpoic cholecystectomy under epidual or spinal anesthesia?

將問題寫成PICOT

P	Patient with laparoscopic cholecystectomy
I	Performing laparoscopic cholecystectomy under general anesthesia
C	Performing laparoscopic cholecystectomy under spinal anesthesia
O	Spinal anesthesia was associated with an extremely low level of postoprative pain,better recovery than general anesthesia

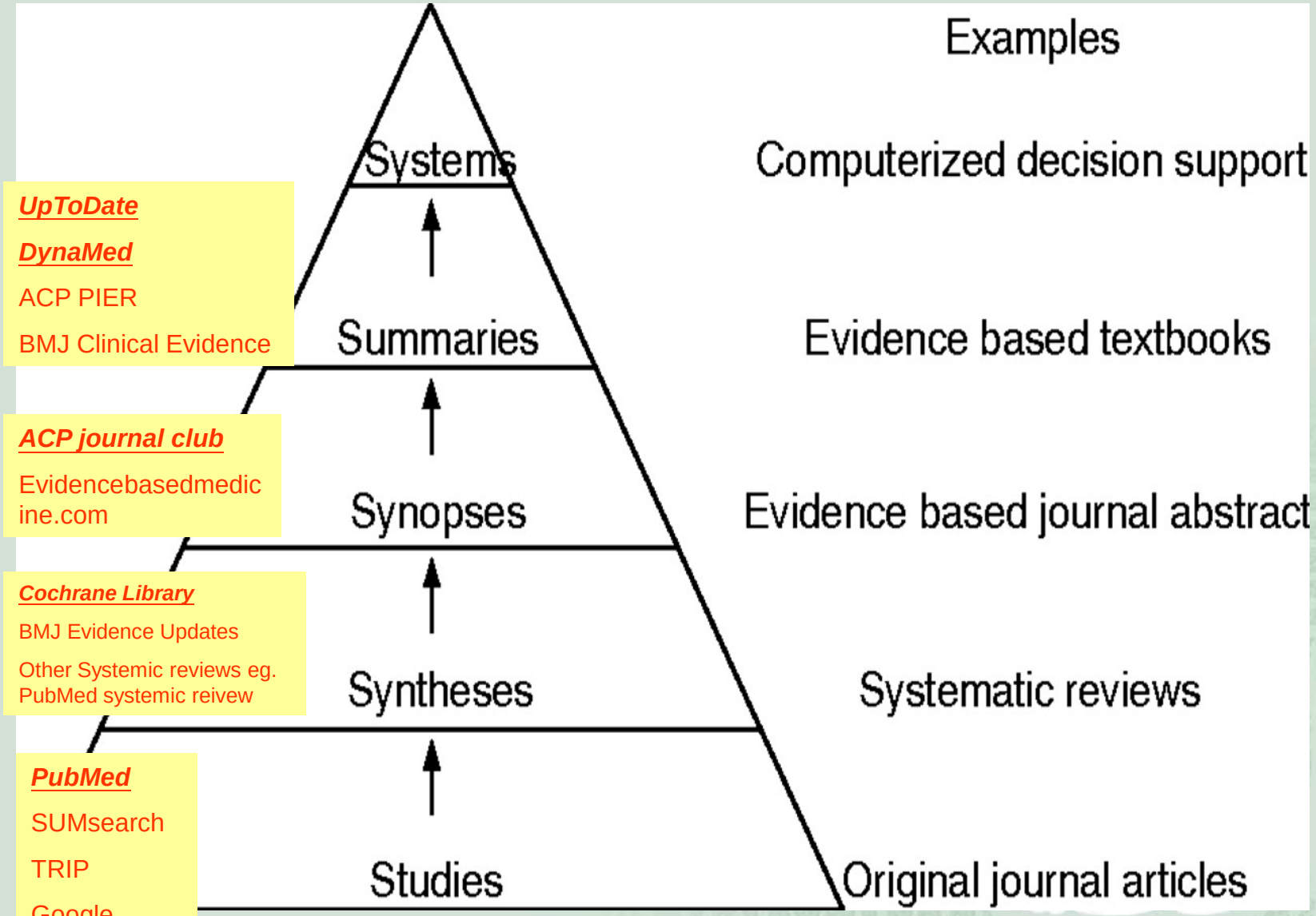
搜尋最有用的資料

先從已經過評讀的database開始找起(system,synopses,synthesis)

最後再找尚未經過嚴格評讀的study

The "5S" levels of organisation of evidence from healthcare research

Brian Haynes, R Evid Based Med 2006;11:162-164



搜尋Summaries

- Key word: laparoscopic cholecystectomy,spinal anesthesia
- 搜尋到的文章標題:
- **Propofol: Laparoscopic cholecystectomy: Techniques**

搜尋到的文章內容

- Cholecystectomy is one of the most commonly performed abdominal surgical procedures, and in developed countries many are performed laparoscopically.
- As an example, 90 percent of cholecystectomies in the United States are performed laparoscopically .
- Laparoscopic cholecystectomy is considered the "gold standard" for the surgical treatment of gallstone disease.
- This procedure results in less postoperative pain, better cosmesis, shorter hospital stays and disability from work than open cholecystectomy .

搜尋Synopses ，ACP Journal Club

- Key word: laparoscopic cholecystectomy,spinal anesthesia

- 搜尋到的文章標題: nil

搜尋 syntheses, Cochrane Central Register of Controlled Trials

- Key word: laparoscopic cholecystectomy,spinal anesthesia

- 搜尋到的文章標題:nil

搜尋Studies, Pubmed

- Key word:

laparoscopic cholecystectomy,spinal anesthesia

搜尋到的文章標題:

- Different **anesthesia** methods for **laparoscopic cholecystectomy**.
  - Anaesthesist. 2011 Aug;60(8):723-8

Appraisal (嚴格評讀）

對找到的文章
進行critical appraisal

AAMPICOT

- **Answer**: Does this paper answer your question?
  - Yes
- **Author**:
  - Is the author an expert of the field?
    - Yes
  - Is there any conflict of interest?
    - Not mentioned

Method

證據等級(針對PubMed這篇)

Level	與[治療/預防/病因/危害]有關的文獻
1a	用多篇RCT所做成的綜合性分析(SR of RCTs)
1b	單篇RCT(有較窄的信賴區間)
1c	All or none
2a	用多篇世代研究所做成的綜合性分析
2b	單篇cohort及低品質的RCT
2c	Outcome research / ecological studies
3a	SR of case-control studies
3b	Individual case-control studies
4	Case-series(poor quality :cohort / case-control studies)
5	沒有經過完整評讀醫學文獻的專家意見

PICOT:將文獻分析成PICOT

P	Patient with laparoscopic cholecystectomy
I	Laparoscopic cholecystectomy under general anesthesia
C	Laparoscopic cholecystectomy under general anesthesia
O	Post operative pain

P

- The study included 68 patients with symptoms of cholelithiasis examined in the 309th Hospital of PLA from 2006 to 2009.
- Patients were randomly selected to undergo laparoscopic cholecystectomy with low tension pneumoperitoneum with CO(2) under general anesthesia (n=33) or spinal anesthesia (n=35).

Randomized? Yes.
Representative? Yes.

C,O

- Laparoscopic cholecystectomy with low pressure pneumoperitoneum with CO(2) can be safely performed under spinal anesthesia.
- Spinal anesthesia was associated with an extremely low level of postoperative pain, better recovery and lower cost than general anesthesia.

O

- Measurable: YES
- Blind? Objective ?NO

使用work sheet嚴格評讀

THERAPY WORKSHEET

P

所取樣本是否有臨床代表性是否與我的病人差不多?	,是
分組是否有隨機盲法分組	否
對照組和實驗組進入實驗時是否相似?	是
是否病人都被放在原來的組別中做分析?	是
是否醫師和病人對治療都不知情?	否
失去追蹤個案數是否過多？5/20% rule	否

I and C

I是否清楚描述並且是可行的	是
C是否清楚描述並且是可行的	是

O

是否選用客觀的測量結果	是
是否使用盲法(測量者與受試皆不知受試者被分在那一組)	否

T

測量結果的時間點是否合乎邏輯	是
追蹤是否夠久	是

使用work sheet嚴格評讀

Should these valid, potentially important results of a critical appraisal about a harmful treatment change the treatment of your patient?	
Can the study results be extrapolated to your patient?	Yes
What are your patient's preferences, concerns and expectations from this treatment?(病人的期望、喜好、關心)	病人希望術後盡快回復正常作息
What alternative treatments are available?	Spinal anesthesia

Apply

結合醫學倫理方法

將study的結果應用在病人身上

醫療現況	病人意願
Laparoscopic cholecystectomy under general anesthesia	病人希望術後併發症減少
生活品質	社會脈絡
以spinal麻醉方式可減低術後pain及住院天數	處置方式並不需要病人負擔任何費用，故並無社會脈絡之顧慮。

Audit（自我評估）

在「提出臨床問題」方面的自我評估

- 我提出的問題是否具有臨床重要性？是，可以作為治療參考。
- 我是否明確的陳述了我的問題？
  - 我的foreground question 是否可以清楚的寫成PICO？可
  - 我的background question是否包括what, when, how, who等字根？有，但未能包括全部
- 我是否清楚的知道自己問題的定位？（亦即可以定位自己的問題是屬於診斷上的、治療上的、預後上的或流行病學上的），並據以提出問題？知道，屬於治療範疇
- 對於無法立刻回答的問題，我是否有任何方式將問題紀錄起來以備將來有空時再找答案？　有

在「搜尋最佳證據」方面的自我評估

- 我是否已盡全力搜尋？是
- 我是否知道我的問題的最佳證據來源？是
- 我是否從大量的資料庫來搜尋答案？是
- 我工作環境的軟硬體設備是否能支援我在遇到問題時進行立即的搜尋？是，學校買的版權資源非常便利
- 我是否在搜尋上愈來愈熟練了？是
- 我會使用「斷字」、布林邏輯、同義詞、MeSH term，限制(limiters)等方法來搜尋？部份會
- 我的搜尋比起圖書館人員或其他對於提供病人最新最好醫療有熱情的同事如何？普通程度

關於「嚴格評讀文獻」方面的自我評估

- 我是否盡全力做評讀了？盡力而為
- 我是否了解Number need to treat 的意義？了解
- 我是否了解Likelihood Ratios的意義？了解
- 我是否了解worksheet每一項的意義？了解
- 評讀後，我是否做出了結論？是

關於「應用到病人身上」的自我評估

- 我是否將搜尋到的最佳證據應用到我的臨床工作中？可
- 我是否能將搜尋到的結論如NNT, LR用病人聽得懂的方式解釋給病人聽？盡力
- 當搜尋到的最佳證據與實際臨床作為不同時，我如何解釋？Spinal anesthesia onset較慢, subarachonoid space在腹壓較大時容易headache, nausea, vomiting

改變「醫療行為」的自我評估

- 當最佳證據顯示目前臨床策略需改變時，我是否遭遇任何阻止改變的阻力？有，目前有spinal anesthesia complication之問題
- 我是否因此搜尋結果而改變了原來的治療策略？做了那些改變？尚無

效率評估

- 這篇報告，我總共花了多少時間？好幾天
- 我是否覺得這個進行實證醫學的過程是值得的？值得，學會了應用Mesh term搜尋文章，疑問得到解答，也更熟悉EBM的操作
- 我還有那些問題或建議？評讀paper的方法不甚熟練