

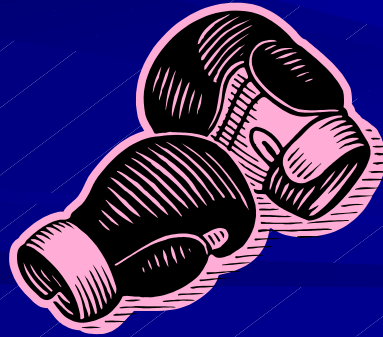
DISCLAIMER

No Conflict of Interest



EXCLAIMER

No Interest in Conflict



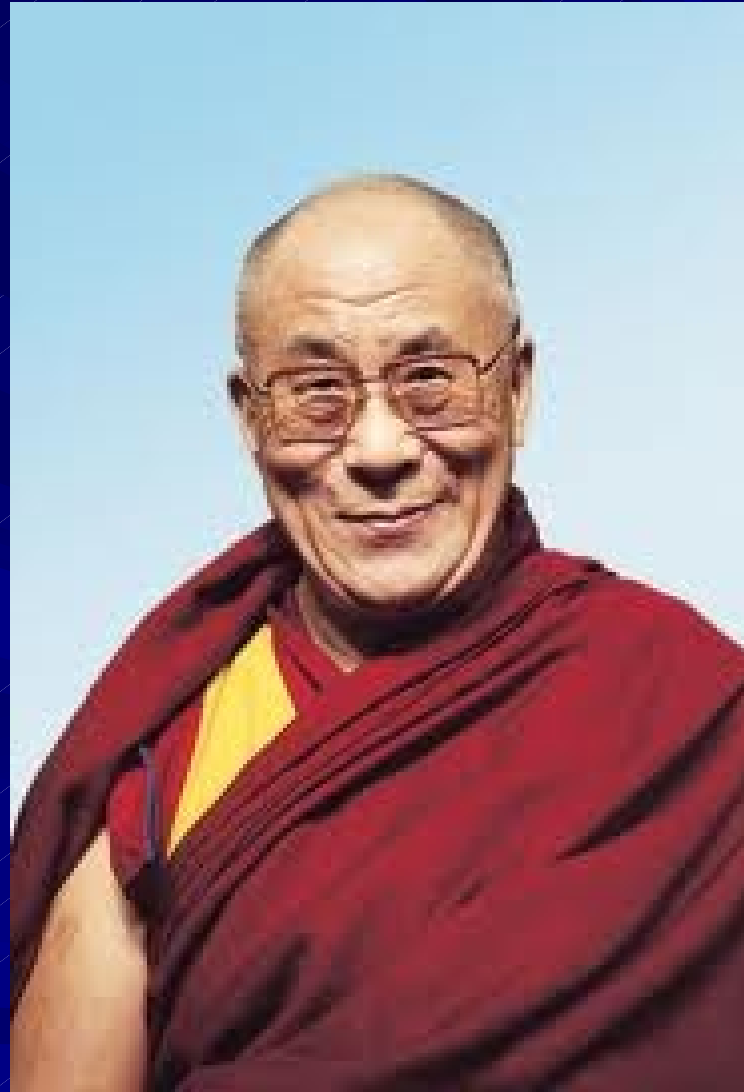
GALLSTONES

FAQs and FACTS

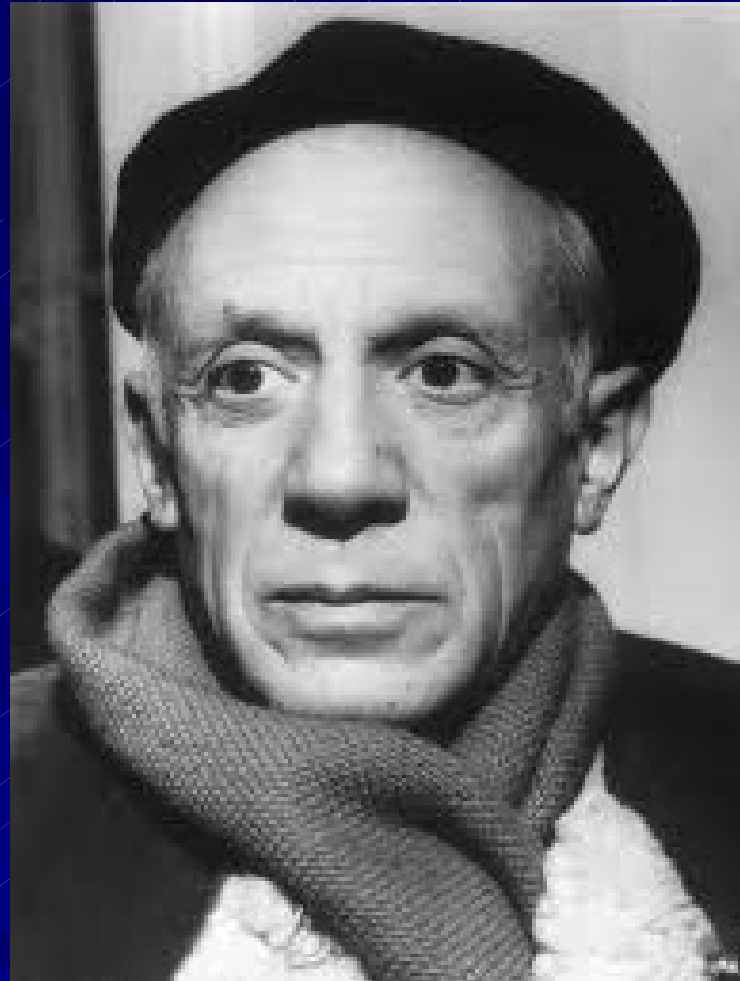
John Dunn, FRACS

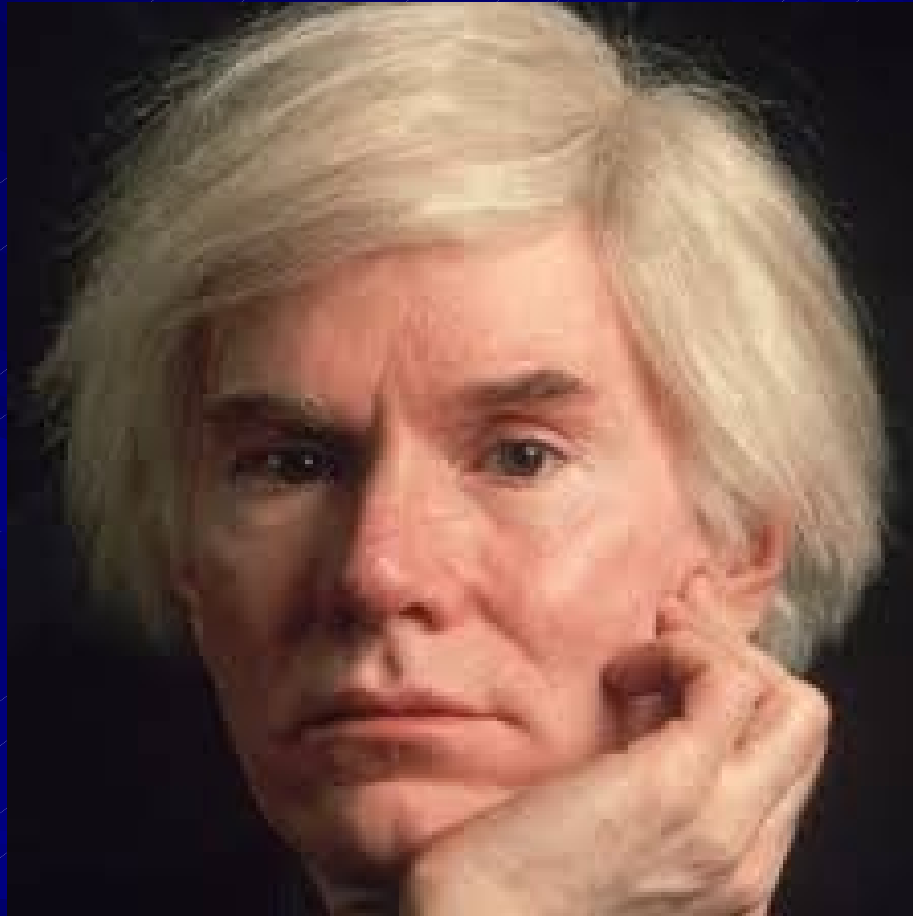
Laparoscopy Auckland





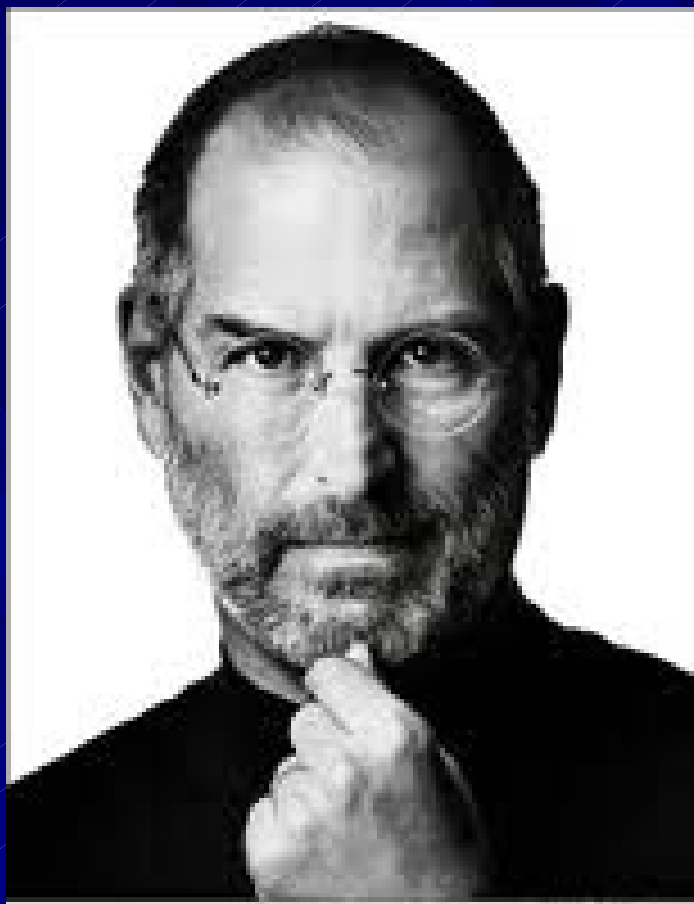


















YOU GOTTA
KNOW
THIS STUFF



HOW DO THEY FORM?

- Gallbladder
- Lithogenic bile (super-saturated)



RISK FACTORS?

- female (two thirds)
- babies
- obesity
- weight loss ($> 15\text{kg}$)
- family history
- haemolysis
- Kiwi (20%)



SYMPTOMS (1)

PAIN

- 0200 hrs
- epigastric > RUQ
- back (mid thoracic)
- severe (usually)
- fats & oils



SYMPTOMS (2)

RESTLESS

- couldn't get comfy
- didn't know what to do
- pacing/rolling
- shifting



SYMPTOMS (3)

NAUSEA & VOMITING

- can be severe
- may relieve pain
- beware Mallory-Weiss



INVESTIGATIONS

- ultrasound
- gastroscopy (second)
- CT (no)
- MRCP (debatable)
- ERCP (interventional)



DIFFERENTIAL (1)

COLIC

- gallbladder/duct
- small bowel (umbilical)
- large bowel (lower)
- ureter (flank)
- (uterus)



DIFFERENTIAL (2)

- DU/GU (constant)
- MI (still)
- GORD (rising)
- Spasm (bollocks)
- Pancreatitis (constant)



TREATMENT (1)

ANALGESIA

- Paracetamol (nope)
- Tramadol (unpredictable)
- NSAIDs (PO/PR, never IM)
- Narcotics (morphine/pethidine)



TREATMENT (2)

ANTI-EMETICS

- Metoclopramide
- Prochlorperazine
- Ondansetron



TREATMENT (3)

MEDICAL

- antibiotics (waste of time)
- dissolution (waste of time)
- lithotripsy (nope)



TREATMENT (4)

ERCP

- includes sphincterotomy
- jaundice/cholangitis
- pancreatitis
- deranged LFTs
- bleed/pancreatitis
- endoscopist dependent



TREATMENT (5)

SURGICAL

- laparoscopic cholecystectomy
- cholecystostomy
- subtotal
- CBD exploration
- intra-op cholangiogram



LAP CHOLE



LAP CHOLE MY OPERATION



ADVANTAGES

- pain
- stay 1 day
- RTW 1 week
- cosmesis
- safer



RESULTS (23 YRS)

- n = 4,000+
- major CBI injury - 0
- DVT - 1
- Pneumonia - 0
- Death - 2 (MI day 3)
- Wound infection/hernia << 1%
- Trocar injury << 1%
- Conversion << 1%



I'VE MADE IT!

- first referral
- GP's wife/husband
- GP
- Surgeon's wife/husband
- Surgeon
- Gibbon







SPECIAL (1) PREGNANCY

- During
 - Operate!
 - 2nd trimester best
 - 22 cases, 0 complications
- After
 - Operate!
 - Form during pregnancy
 - Present 6 weeks post partum
 - Breastfeed



SPECIAL (2)

SYMPTOMS NO STONES

- good story
- family history
- gastroscopy negative
- HIDA waste of time
- operate!
- polyps, crystals, cholesterosis
- microlithiasis



SPECIAL (3)

STONES NO SYMPTOMS

- Are you sure?
- “Young”
- Travel
- Diabetic
- Cancer
- 50% crook in 10 years
- Operate!



SPECIAL (4)

POLYPS

- Cholesterol
- Adenomas (rare)
- 10 mm, growing
- Symptoms
- Operate!



COMPLICATIONS (1)

- Biliary colic – operate!
(severe, restless, vomit)
- Acute cholecystitis – operate (acutely)!
(constant, tender, fever)
- Chronic cholecystitis
(histological term)



COMPLICATIONS (2)

MUCOCELE

- large solitary stone
- back pain, predominant or exclusive
- nausea (morning)
- subtle symptoms



COMPLICATIONS (3)

OBSTRUCTIVE JAUNDICE

- short history
- painful
- younger patient
- mild/subtle
- dark urine > pale stool
- recurrent attacks
- ALP > AST (kind of)
- Mirizzi's syndrome



COMPLICATIONS (4)

CHOLANGITIS

Virchow's Triad

- pain
- jaundice
- fever/rigors

Treat

- gram neg shock
- E coli → gentamycin



COMPLICATIONS (5)

PANCREATITIS

- mild to severe
 - ERCP (not acute)
 - fluid support
 - necrosis/pseudocysts
 - no stones → operate!
 - lap chole same admission
-
- ? cooling



COMPLICATIONS (6)

FISTULATION

- duodenum
- gallstone ileus
- colon



COMPLICATIONS (7)

- empyema (rare)
- perforation (rare)
- cancer (1% ?less)



I HATE

- fat, female, fertile, forty
- “wait 6 weeks”
- “wait for another attack”
- “increase your losec”
- “I need to do open surgery”
- “you can’t eat fat again”
- “surgery is dangerous”
- “it’s not your stones”



TAKE HOME (1)

- gallstones are DANGEROUS
- gallstones are COMMON
- high index of suspicion



TAKE HOME (2)

- pain is midline
- sometimes only back
- restlessness & vomiting
- get ultrasound FIRST
- beware negative ultrasound
- beware “no symptoms”
- colic is cystic duct obstruction



TAKE HOME (3)

- jaundice/pancreatitis refer
- MRCP/ERCP surgical decision
- beware cholangitis → gentamycin
- pancreatitis = lap chole EARLY
- acute cholecystitis = lap chole EARLY



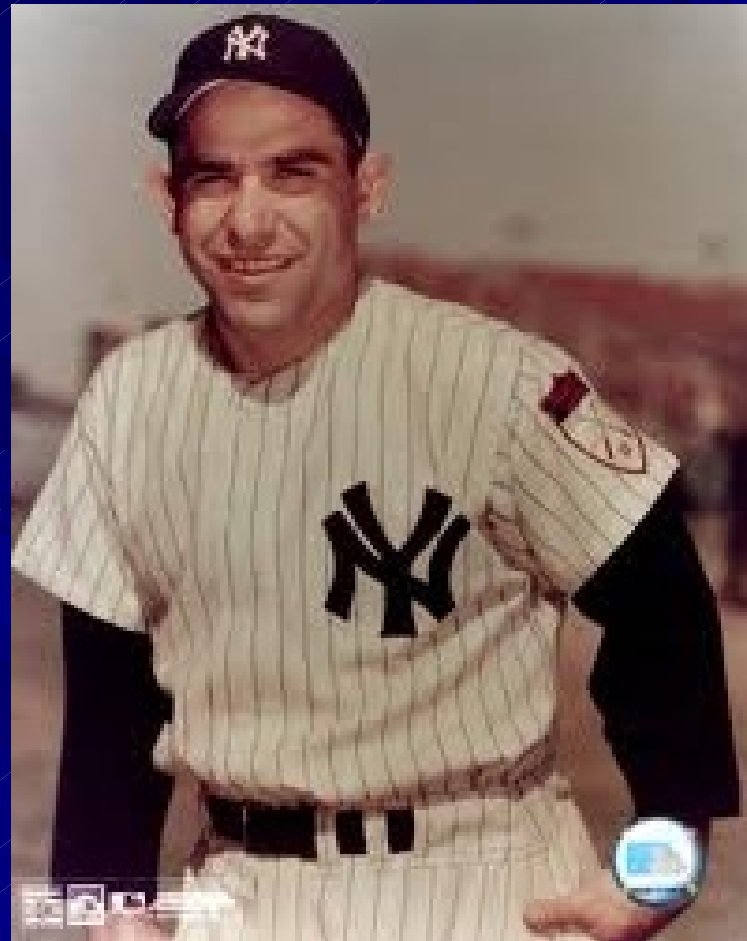
TAKE HOME (4)

- use NSAIDs (not IM) or narcotics
- small stones more dangerous than big stones
- don't agonise – OPERATE!
- laparoscopy is bloody great



0800 SURGEON





“When you come to a fork in
the road – take it”

