

THE WRONG END OF THE NEEDLE

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THE INCIDENT

- **7/3/05 5 PM – END OF BUSY ENDOSCOPY LIST**

- **INPATIENT WITHOUT IV ACCESS**

CANNULA INSERTED -MOVEMENT

**DEEP NEEDLESTICK INJURY – HOLLOW
BORE NEEDLE INTO LEFT INDEX
FINGER**

USUAL MEASURES

THE BOMBSHELL

- “THIS PATIENT HAS HEPATITIS C”

THAT NIGHT ON THE INTERNET

- RISK OF HCV TRANSMISSION – 2 → 10%
- REPORT OF PHYSICIAN SUCCESSFULLY
TREATED WITH INTERFERON
- VERY LITTLE SLEEP

THE NEXT MORNING

- ● SEEN BY OCCUPATIONAL HEALTH
- ● G.U.M PHYSICIAN COUNSELLING
- ● SOURCE BLOODS - MY BASELINE
■ BLOODS - CONFIRMED
- ● GRADUAL RESOLUTION OF ANXIETY
- ● WAITING FOR 6 WEEKS TESTING

SYMPTOMS

- 18 APRIL BLOOD TEST for HCVAB and HCVRNA
- ● THAT WEEK – NAUSEA IN THE MORNING
- ● ONE DAY OF VOMITING FOR 12 HOURS
- ● NEXT DAY DARK URINE = BILIRUBINURIA
- ● NOT OBVIOUSLY JAUNDICE
- ● GP CHECKED LFTS = BILIRUBIN 60 ALT 1600

ACUTE HEPATITIS C

- • 20% SYMPTOMS
- • 26% SPONTANEOUS CLEARANCE
- • YOUNG FEMALES DO BEST

VIROLOGY

- **VIRAL LOADS OVER NEXT FEW WEEKS**
- **GENOTYPE 3A**
- **400,000 to 9,000 (72) To 21,000(79) but results took 7 days to return**

- **DAY 79 – Decided clearance unlikely**
- **1ST INJECTION PEG IFN 2b + RIBAVIRIN (Combination therapy)**

Important Safety Information on Anti-HCV Therapy

- **Teratogenicity (RBV)**
- **Neuropsychiatric**
 - Depression
 - Irritability
 - Insomnia
 - Suicidal ideation
- **Cardiovascular**
 - CAD risks with anemia
 - Increased triglycerides
- **Blood/bone marrow toxicity**
 - Anemia
 - Leukemia/neutropenia
 - Thrombocytopenia
- **Gastrointestinal**
 - Anorexia
 - Nausea/vomiting
 - Diarrhea/constipation
 - Pancreatitis
- **Endocrine/metabolic**
 - Thyroid
 - Diabetes
 - Hyperuricemia
- **Pulmonary**
 - Cough
 - Dyspnea on exertion
 - Interstitial lung disease
 - Pulmonary infiltrates
 - Pneumonitis and pneumonia
- **Ophthalmic**
 - Retinal hemorrhages
 - Cotton wool spots
- **Flu-like symptoms**
 - Fatigue
 - Fever/chills
 - H/A
 - Fatigue
 - Myalgia
- **Cutaneous**
 - Injection-site reactions
 - Rash/pruritus
 - Alopecia

My Experience on Treatment

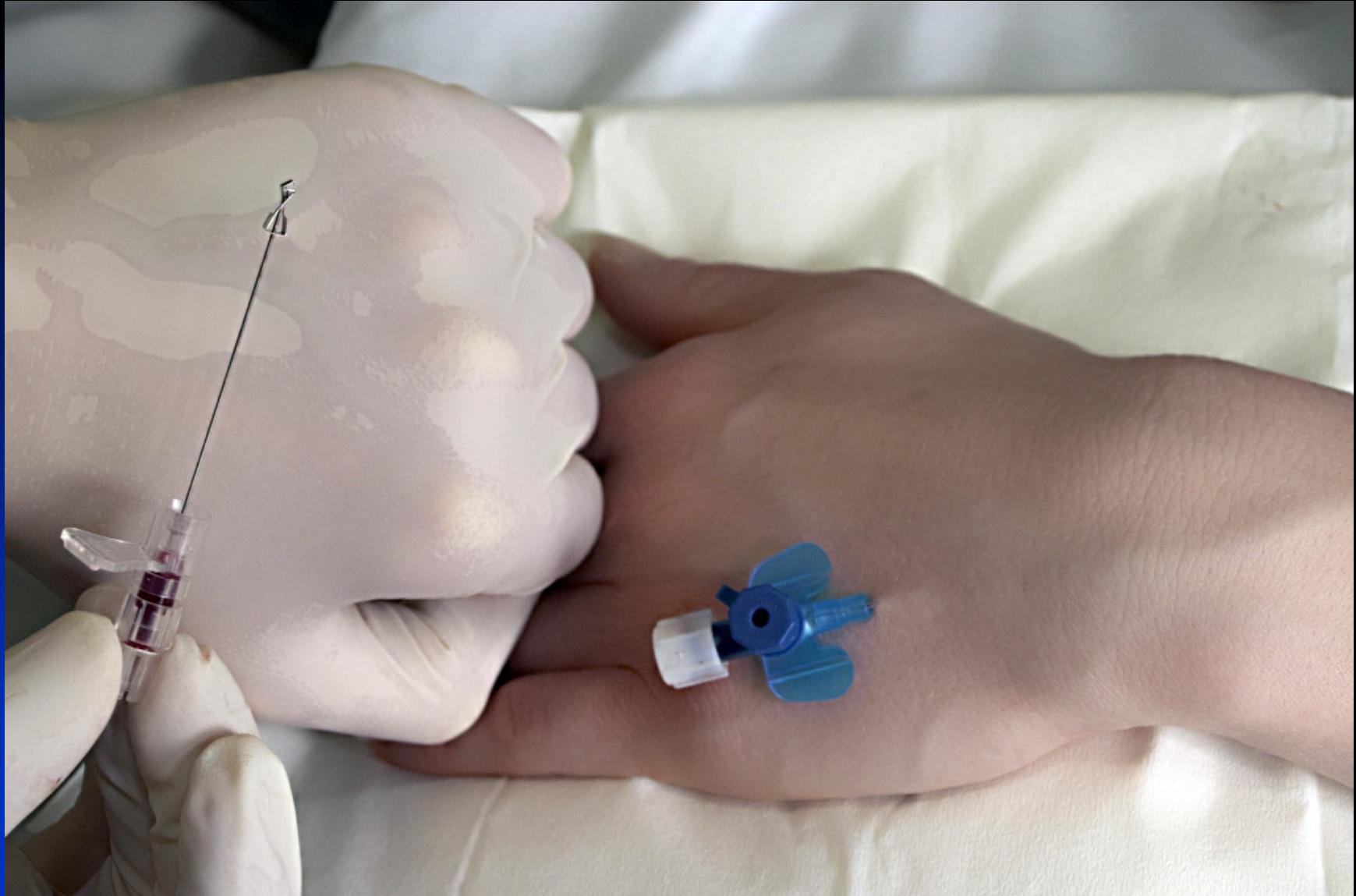
- 24 weeks in acute Hep C
- Weight loss
- Bad weekends but able to work after 2 weeks
- Occasional insomnia
- Avoided fiddly tasks due to short fuse
- Hb 11 and Neutrophils 1.1
- Conclusion ;relatively lucky

Outcome

- CLEARANCE at 10 , 24 weeks and SVR 24 weeks after TX.
- Clear three years later
- I remain very well but have one health issue which may or may not be related .

Reflections

- The first night was the worst but intermittent dark times especially on tx .
- Feeling of Isolation ;nobody really understands.
- I have counselled needlestick injuries recipients .
- I have extensively researched all aspects of needlesticks, acute hepatitis c and chronic hepatitis c. Unique position/experience and positive outcome.
- IT COULD HAVE BEEN WORSE ;HIV EXPOSURE



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2009 : EYE OF THE NEEDLE 3 + HPA

- ● 2000 – 2009
- ● 1260 p/c exposures TO HEP C
- 68% due to hollow bore needles
- ● SHOs increasingly involved
 - ◆ A&E ,ITU and OT
- ● POOR COMPLIANCE IN POST EXPOSURE TEST
- ● HCV SEROCONVERSIONS;17 in 13 years

EYE OF NEEDLE 2009

- Since 2000
- 1093 exposures to HIV
- 904 took PEP
- 37% had PEP within one hour
- No cases since 1999
- Final recommendation.
- Encourage use of safety devices !

Needlestick Injuries among Surgeons in Training

- NEJM 2007/17 USA Centres
- 582 of 699 respondents had had needlestick injuries
- After 5yrs 99% had had needlesticks (53% high risk)
- 51% not reported (16% high risk)
- 72% in OT ;most self inflicted with solid needle during suturing

Final Messages

- Needlestick is an emergency ;re HIV and PEP
- In random needlestick ,you are 50 times more likely to contract HCV than HIV
- Ignorance, arrogance and complacency are the main obstacles to overcome in the battle to reduce /eradicate needlestick injuries .
- **PREVENTION,PREVENTION and PREVENTION**

Final Thoughts

- Nobody is “above” avoiding a needlestick injury
- Everyone should accept the need for retraining when introducing safety devices
- It is my impression that safety devices are rarely used for taking blood samples (as compared with cannulation)
- Venous access is a precious resource and should be nurtured as such (Drip alarms!!)