



Portsmouth Hospitals **NHS**  
NHS Trust



*VADAR group, Portsmouth*



# Sarah Kattenhorn

## Buttonhole PTFE 20 Months on... 😊

VASBI, Leeds, Sept 22<sup>nd</sup> and 23<sup>rd</sup> 2016

# Background

Button Hole technique for AV fistulae is GOOD

- Prolonged life span
- Reduce aneurysms
- Less haematoma
- Less pain
- Less bleeding
- Promotes self-cannulation

BUT – some report more infections

# Background

Button Hole technique in AV Grafts is **BAD** 😞

(NB This is not a recommended technique)

- Increased risk of infection? – foreign material
- More severe consequences of infection
- Can they tolerate repeated blunt needling?
  - Will they tear/shred?

# Button Hole in AV Grafts: is it really that bad?

- VASBI 2015 I reported our experience of button holing grafts:
  - 5 patients with established button holes
  - 1 forearm PTFE
  - 2 Leg Loops
  - 2 UA PTFE
- Total weeks experience was: 88

# Progress to date

- Number of patients
- Number of complications
  - Infection
  - Clotted
  - Stenosis
  - Any other
- Number of procedures
  - Any procedure

# Progress to date

Patient	Graft	Drop out Date	Graft Age (weeks)	Button hole length (weeks)	No. BH interventions	Weeks to first Intervention
1	FA		353.57	41.57	0	
2	Leg		304.29	39.71	0	
3	Leg	20/11/2015	207.71	79.43	1	18
4	Leg		197.71	6.00	0	
5	UA		143.86	50.71	2	8
6	Leg		107.86	90.00	1	80
7	Leg		61.86	14.57	0	
8	Leg	14/04/2016	61.71	48.86	0	
9	<b>UA</b>		<b>51.86</b>	<b>45.86</b>	<b>0</b>	
10	Leg		37.86	10.00	0	
11	<b>Leg</b>		<b>29.86</b>	<b>26.71</b>	<b>0</b>	
12	<b>Leg</b>	<b>03/07/2016</b>	<b>6.86</b>	<b>4.71</b>	<b>0</b>	
13	UA	18/06/2016	Unknown	20.86	1	15
14	<b>L UA</b>		<b>8.71</b>	<b>5.29</b>	<b>0</b>	

Total no. Patients: 14  
Total no. of weeks: 484  
Total no. of interventions: 5  
Weeks per intervention: 97

Not one single BH infective complication in 484 weeks

# Drop out reasons

- RIP Chest infection
- RIP Ischaemic heart disease
- Graft removed due to abscess adjacent to incision site causing infection
- 1 patient choice preferred rope ladder

# In patients purely Button Holed:

- 82 weeks of BH life
- No infections to date
- No interventions





# How does this compare to Rope Laddering Grafts?

- Currently 36 patients rope laddering PTFE grafts
  - 5488 weeks
  - 87 interventions
  - 2 infections (grafts excised)
  - Weeks per intervention 63

# Discussion

Button Hole in AV Grafts: is it really that bad?

- Limitations
  - Single centre experience
  - Still (relatively) small numbers?
  - Possible selection bias (we try not to)?
- Is the data convincing yet or have we been lucky?
- Do we need more data?
- If so, what data? Trials or more units trying it?

# Conclusions

Our experience suggests:

1. Using Button Hole technique in AV grafts is safe
2. Button hole method appears to prolong AV graft patency

# 18months on! Button Hole or.....



September 2015



September 2016

.....bad area puncture?



Thank you for you attention!