



TAVI implantation in local analgesia

Less monitoring- a new challenge at Cardiac Intensive Care ward ?

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Background:

- In August 2015, a new Tavi procedure were introduced in Cardiac Cath. Lab. in the Heart centre at Rigshospitalet
- The TAVI implantation change from general anesthesia to local analgesia as a routine in low risk patient



Background:

- This means that patients had less monitoring than previously when they were admitted at Cardiac Intensive Care ward:
 - None of the patients had temporary pacemaker except if they were in risk of developing AV block
 - They were not monitored with arterial catheter, central vein catheter or urinary catheter



Nursing challenges at Cardiac ICU:

- Feedback from the nurses showed that following areas were challenging when patients suffered from:
 - Affected breathing, changes in electrolytes and lactat without arterial catheter for blood tests
 - AV- block without temporary pacemaker
 - Unstable blood pressure and no central vein catheter for inotropic or vasodilators



Nursing challenges at Cardiac ICU

- Patients have an increased risk of hematoma in the groin when they urinate in a bed pan or bottle
- It was difficult to measure diuresis without a urinary catheter



Method:

Retrospective study

Journal audit at Cardiac
Intensive Care Ward



Datacollection

Inclusion criteria:

Patients qualified for TAVI in local analgesia

TAVI valve insertion via femoral access

Exclusion criteria:

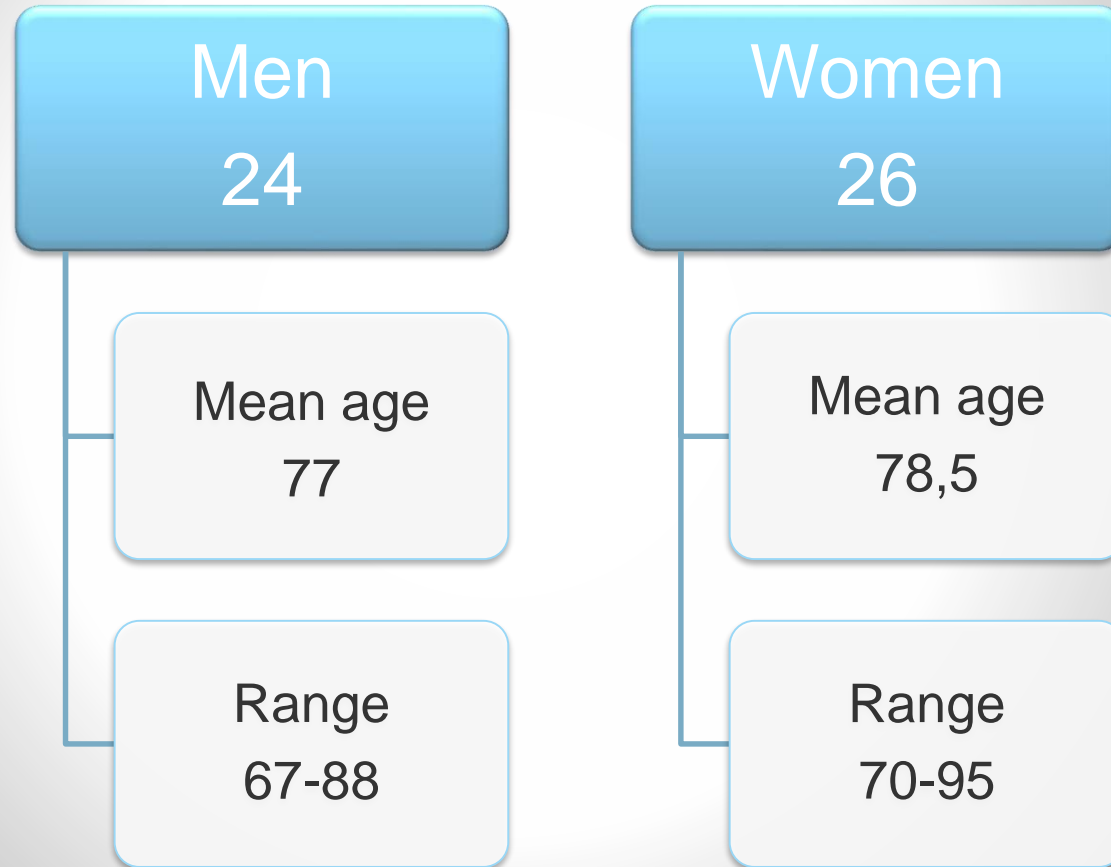
Patients needed conversion to general anaesthesia due to complications

TAVI via apical access



Data collection:

August 2015-March 2016





Nurse reported symptoms post TAVI

Groin	Hematoma	Bleeding- oozing
Circulation	Bloodpressure	Arrhythmia Pacemaker
Urinary retention	Needed catheterisation	Needed urinary catheter
CNS	Delirium	CAM-ICU screening
Pain	Areas with pain	Numeric Rating Scale



Admission at Cardiac ICU

- Patients were in the ward between 2-16 hours until discharge to cardiac ward, when they were hemodynamically stable

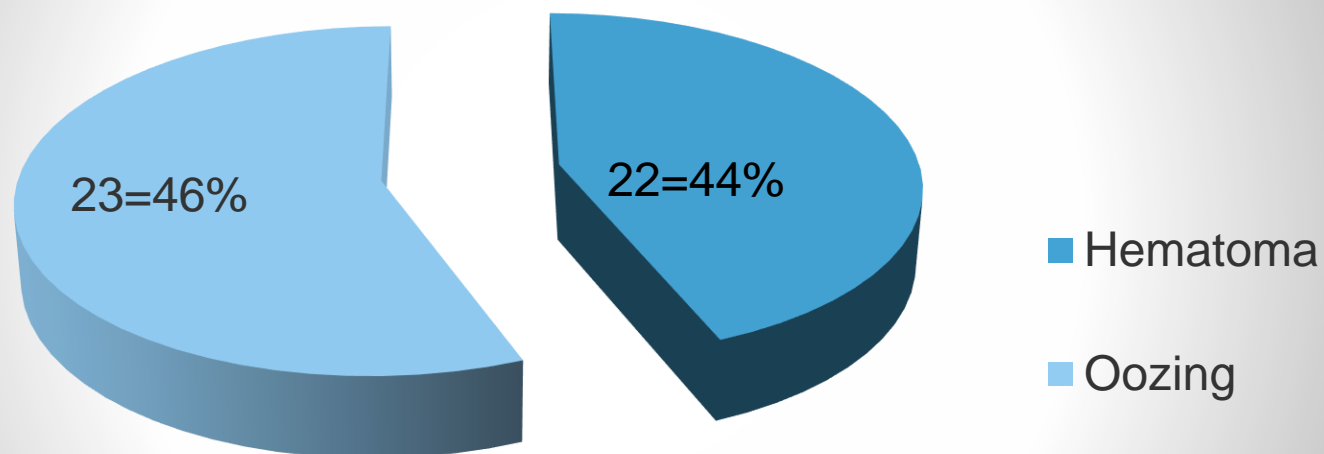




Results:

N=50

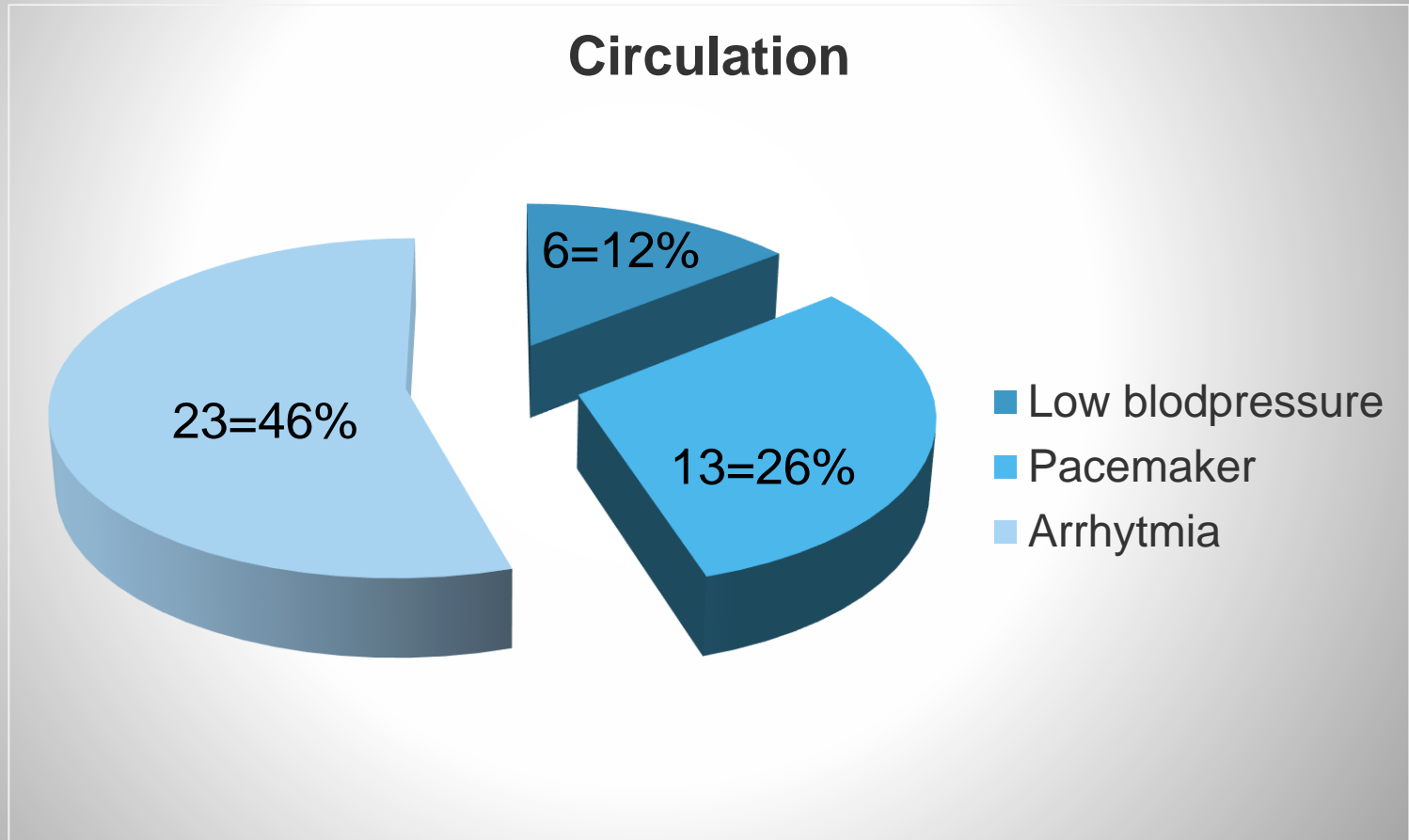
Groin





Results:

N=50

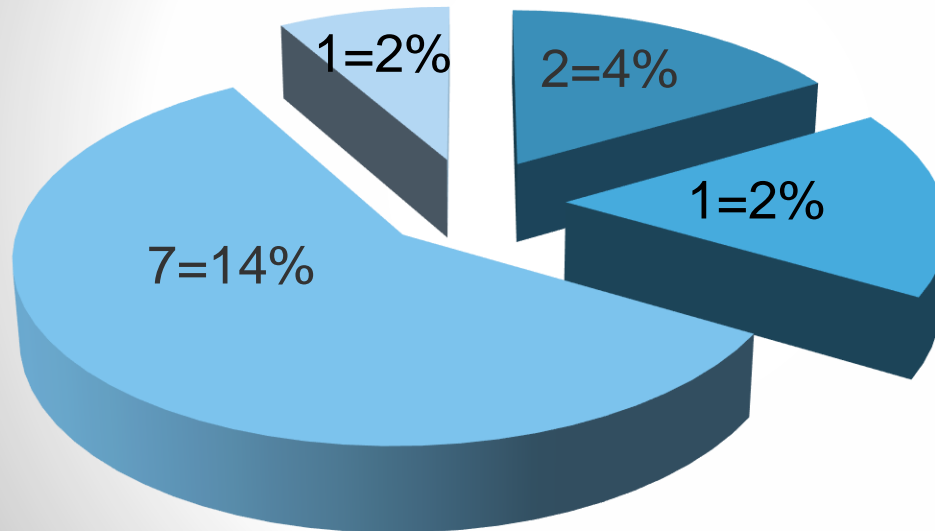




Results:

N=50

Urinary retention



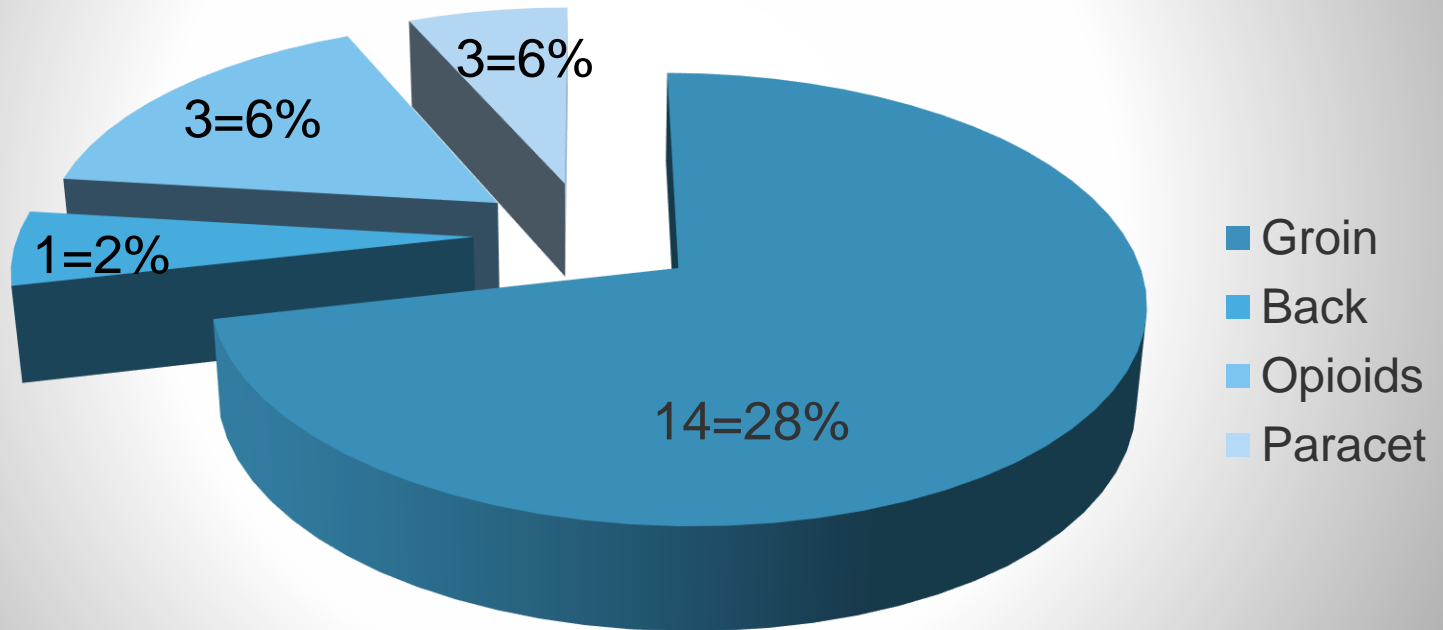
- Catherisation
- Self catherisation
- Urinary cath.
- Urinary cath. Inserted on ward



Results:

N=50

Pain

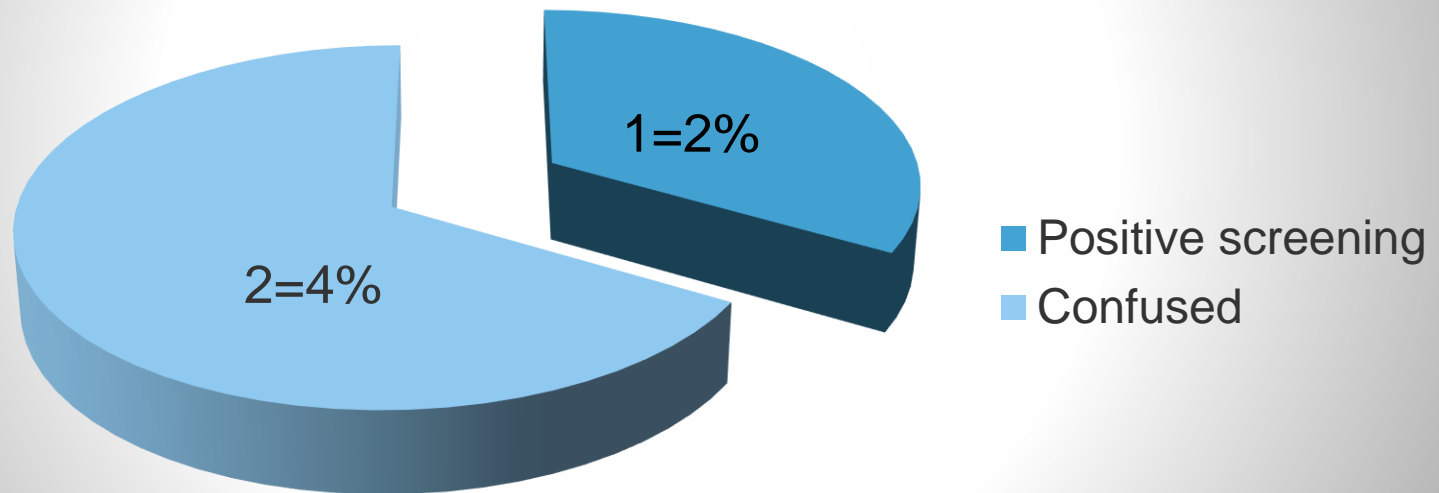




Results:

N=50

Delirium





Results:

N=50

- 22 patients had hematoma in the groin
- 23 patients had oozing from the groin
- 13 patients had temporary Pacemaker
- 22 patients had arrhythmia, A-fibrillation 12, A-flutter 4, AV-block 5, bradycardia 2
- 11 patients suffered from urinary retention
- 14 patients suffered from pain mean NRS= 3,8
- 2 patients was described as confused 1 had delirium



Discussion:

- Criteria for the size of bleeding and size of the hematoma must be defined more precisely in the future
- Is bleeding related to specific patient groups, size of stent or choice of sutures from access site
- Early mobilization could make a difference with urinary retention
- Risk assessment in relation to urinary retention in the elderly patient



Discussion:

- Analgesics should be prescribed it can make a difference
- If patients are unstable at Card. Cath. Lab, insertion of arterial line, central venous line and urinary catheter could be inserted at cath.lab.
- Patients do this group need to be in intensive care ward

Thank you for your attention

