Outcome after 200 sleeve gastrectomy, robotic use only, without assistant port incision nor liver retractor.

More advantages than disadvantages.
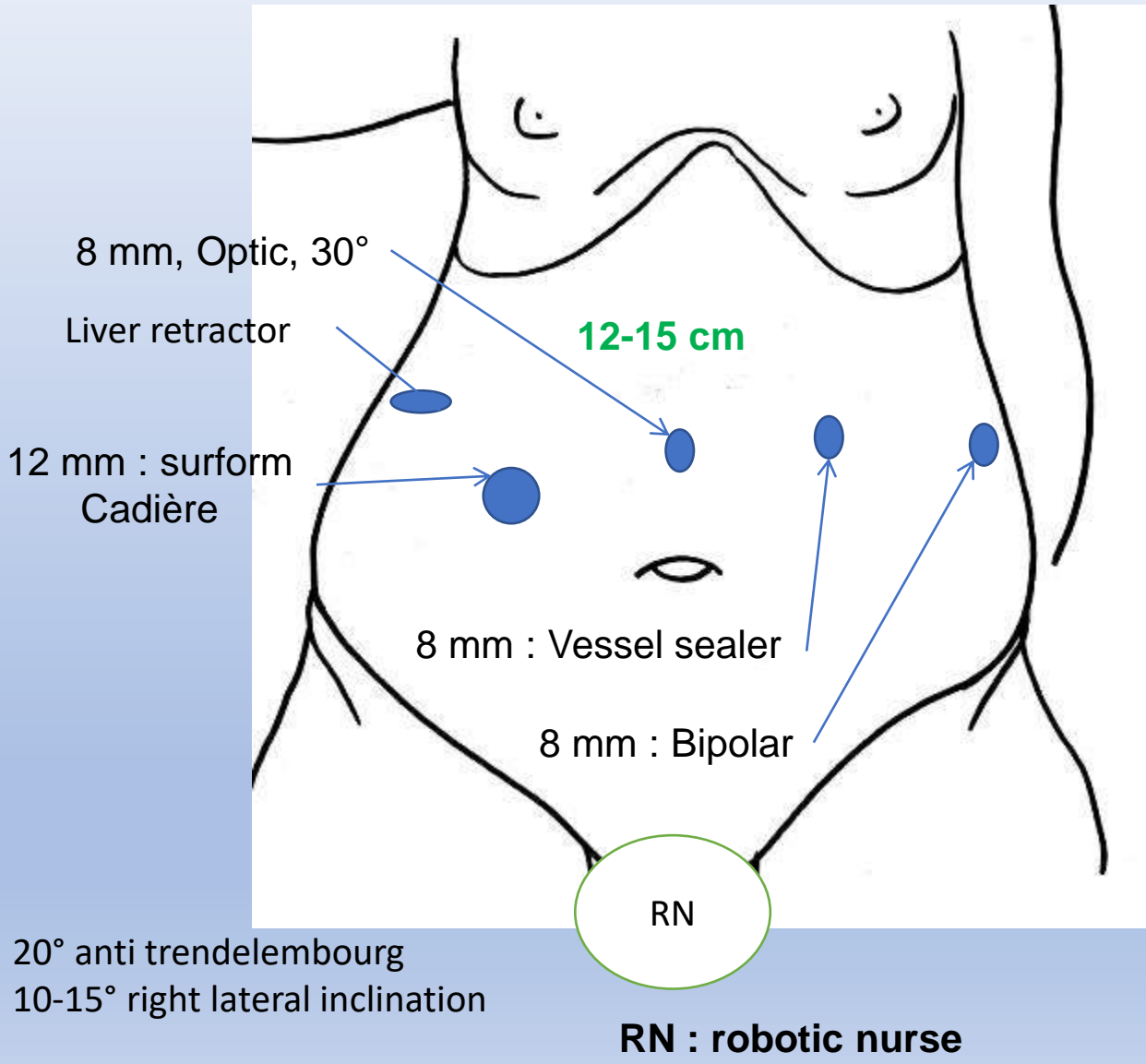
B. BERTHET
Hôpital de la Conception. AP-HM – Marseille
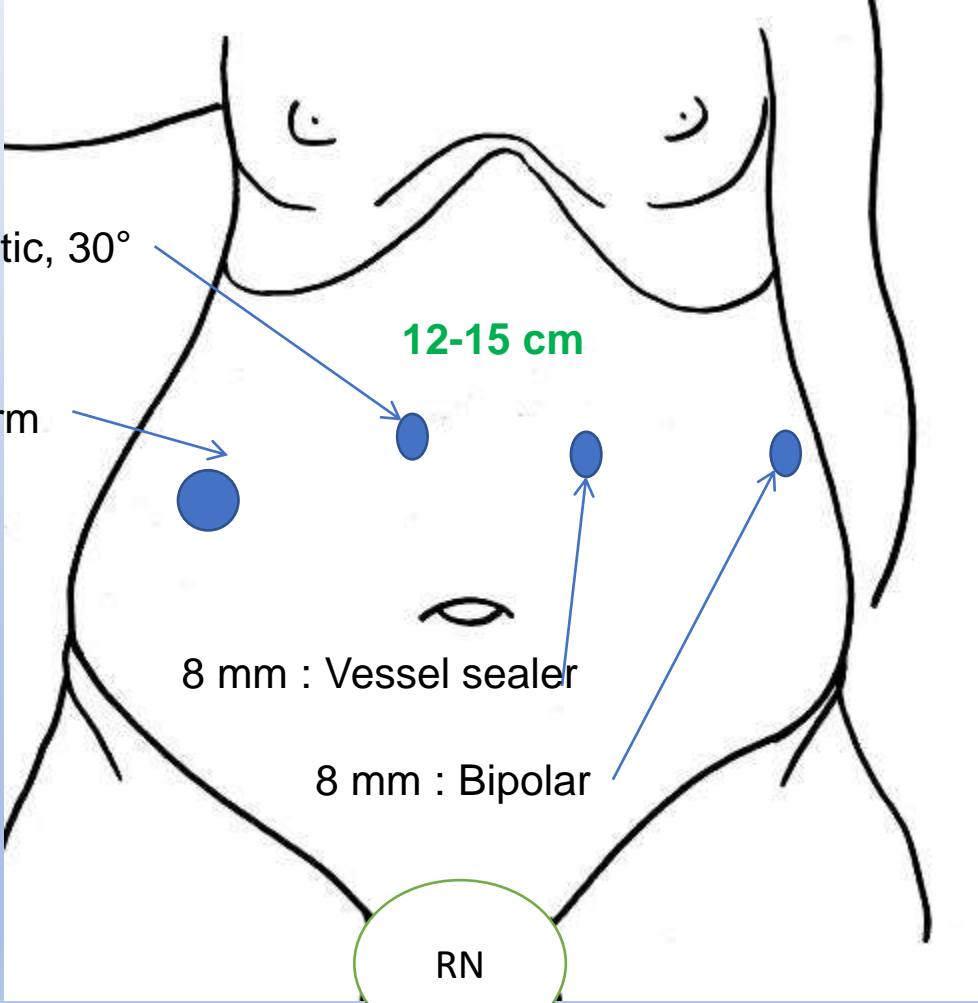**IFFSO Naples 08/23**

Goal of the study

- Standardization after a Learning curve of 30 procedures:

  - Patient Installation
  - port incision and instrument placement
  - Docking
  - Operative time
  - Leading to a reproducible technique

- Evaluation on a series of 200 operated patients
- Evaluation technique for 3-arm Sleeve (3AS)

Installation process during learning curve – 4 arms + 1T help

8 mm, Optic, 30°

Liver retractor

12-15 cm

12 mm : surform
Cadière

8 mm : Vessel sealer

8 mm : Bipolar

RN

20° anti trendelembourg
10-15° right lateral inclination

RN : robotic nurse

Installation process after the learning curve

8 mm, Optic, 30°

12-15 cm

12 mm : surform
Cadière

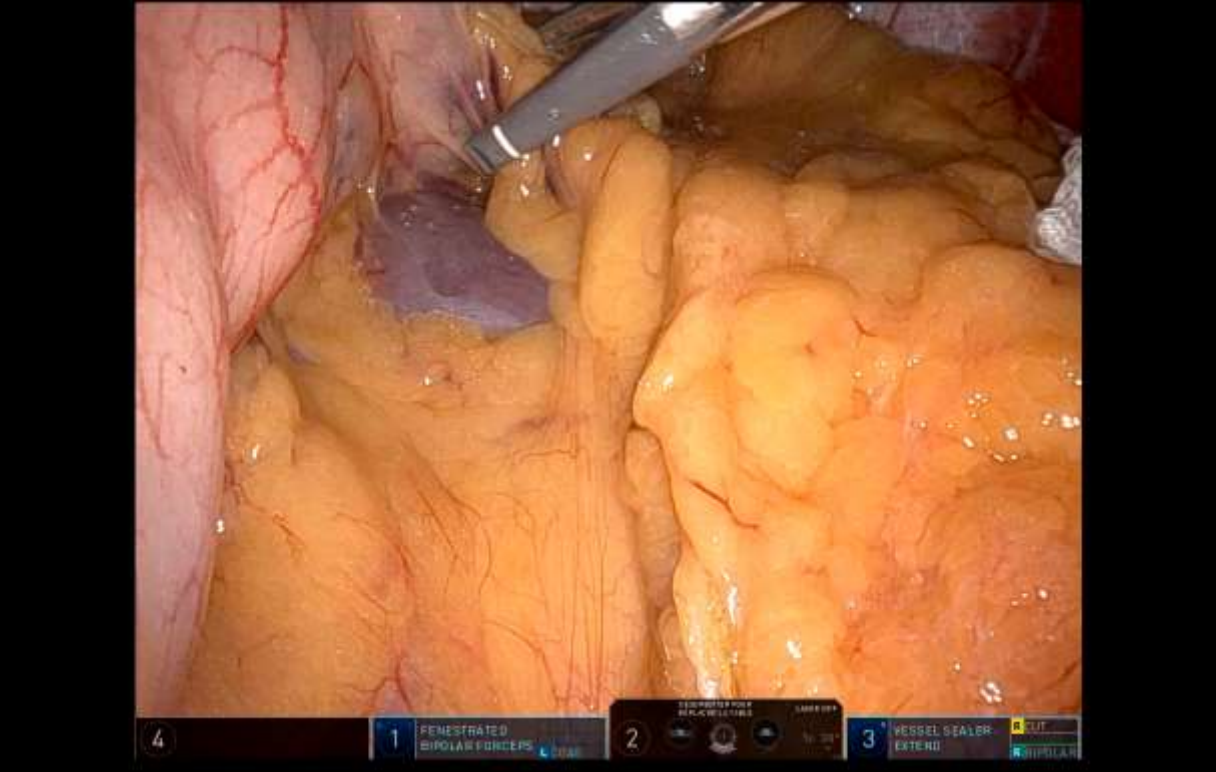8 mm : Vessel sealer

8 mm : Bipolar

RN

20° anti trendelembourg
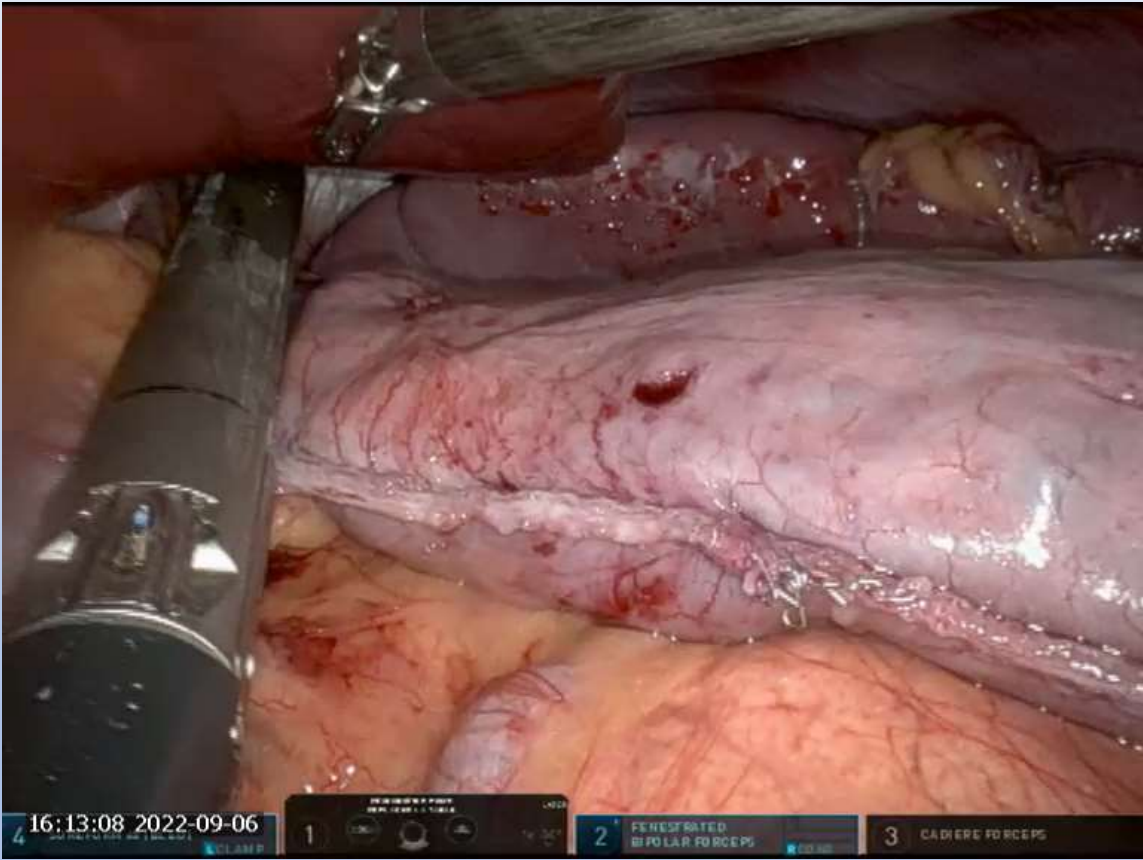10-15° right lateral inclination

RN : robotic nurse

the mean duration between incision and console : 8 min **including** 2 min for docking and insertion of instruments

Dissection sleeve

Stapling
STEATOSE

Improvement of console time

Temps console · Tous les cas

Resident Training

Votre moy. · EUR Moy.

results:

during learning curve

based on 30 procedures

- Complications :
  - 1 fistula (patient 21)
  - 2 bleeding events (patients 15 et 28)

- No transfusion

- No conversion

- Re-hospitalization : 1

Matched series of 200 sleeves : RSG vs LSG

	RSG	LSG
AGE	40,21 (19-67)	44,27 (18-67)
Sex (F)	80%	75%
DT2	25	34
Hta	48	56
Saos	102	108
Arthritis	12	7
BMI	43,55 (36-61)	42,83 (35-55)
BMI >50	30	21
Re-do	8	7

RESULTS

	RSG	LSG	
Surgery duration	50	49	
Stappler loader number (5-7)	5	6	P<0,05
complications	2	7	P<0,05
Fistula	0	**1**	
Sténosis	1	1	
Hématoma-thrombosis	0	2	
Portal Thrombosis	**1**	0	
Wound defect	0	3*	
Length of stay	1,91 (1-7)	2,34 (2-15)	P<0,05
Re-hospitalization	1	1	

Results after 1, 6 and 12 months

1 month	RSG	LSG
% tracking	96%	95%
BMI	38,03	37,83
EWL	31.02	29,8
%PP	12,4%	12%

6 months	RSG	LSG
% tracking	78%	80%
BMI	31,76	31,29
EWL	66,2	67,16
%PP	27%	27%

12 months	RSG	LSG
% tracking	76%	69%
BMI	28,6	28, 3
EWL	82%	81,7%
%PP	32%	31%

METABOLIC EFFECTS

	Before robotic surgery	12 months later	p
CRP	12,39	2,22	P<0,05
Glucoemia	5,90	4,74	
HB glycated	7,45	5,52	P<0,05
cholesterol	5,16	4,65	
Triglycerids	1,63	0,99	P<0,05
LDL cholesterol	1,15	1,51	
HDL cholesterol	3,27	2,74	

Advantages for patients:

- Adherence to robotic surgery

- Less complications

- Less re-hospital admission

- **Better post-operative comfort on pain 3AS ++++**

- Minimally invasive even on scars

- No eventration surgery **for the time being**

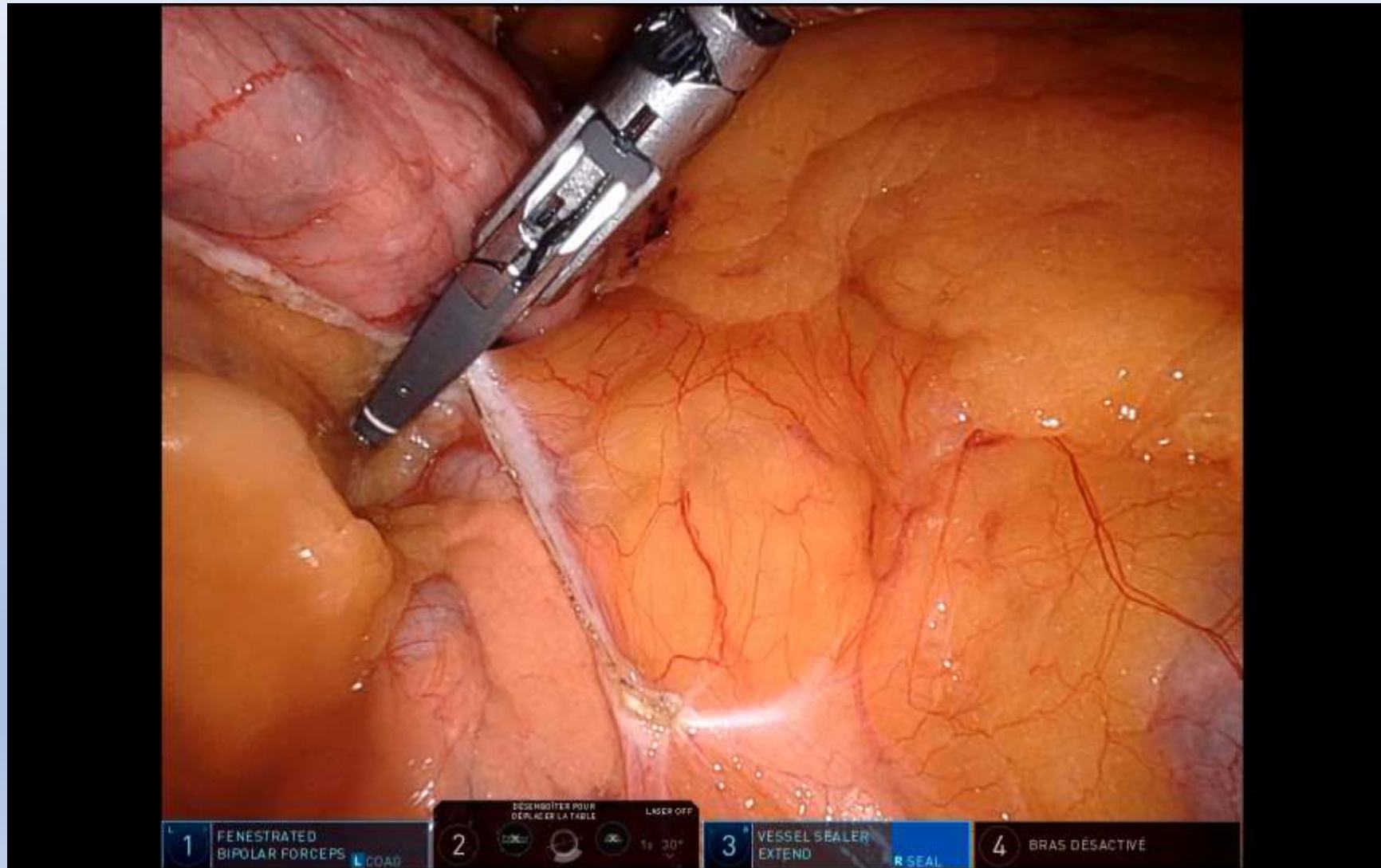- Faster hospital discharge

- Ambulatory surgery
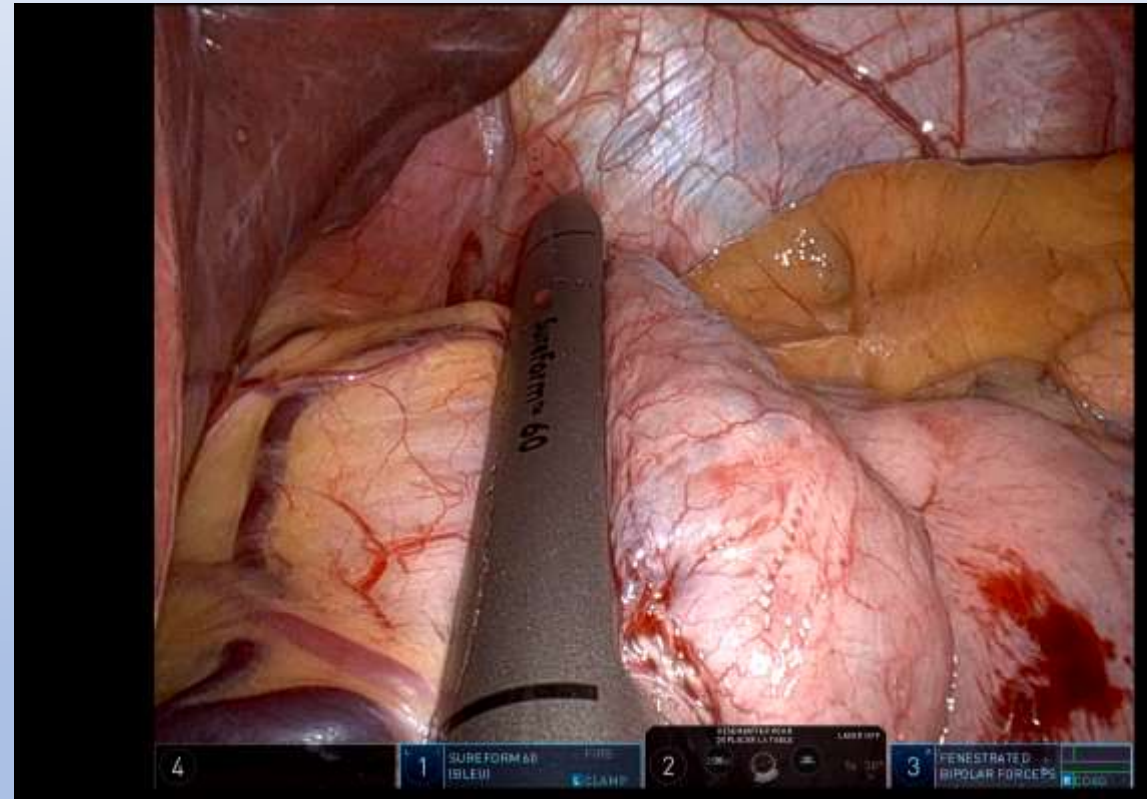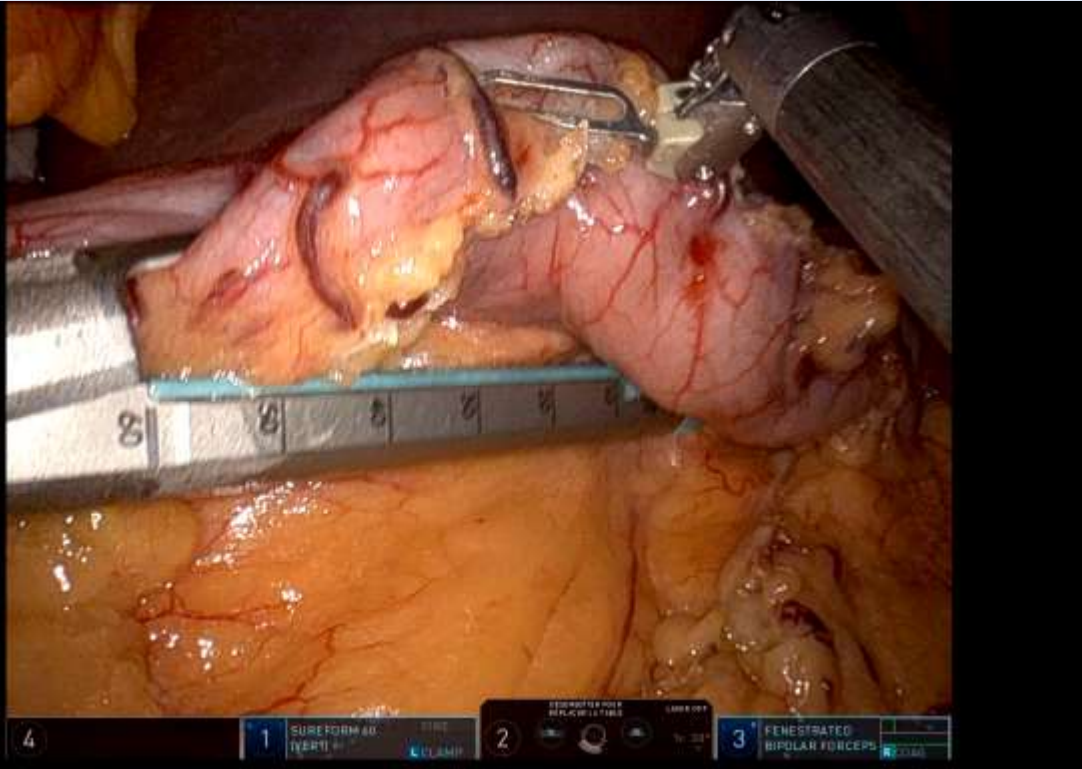
Installation sleeves currently – 3-arm sleeve

12 mm : surform Bipolar

12-15 cm

8 mm : optic 30°

8 mm : vessel sealer

RN
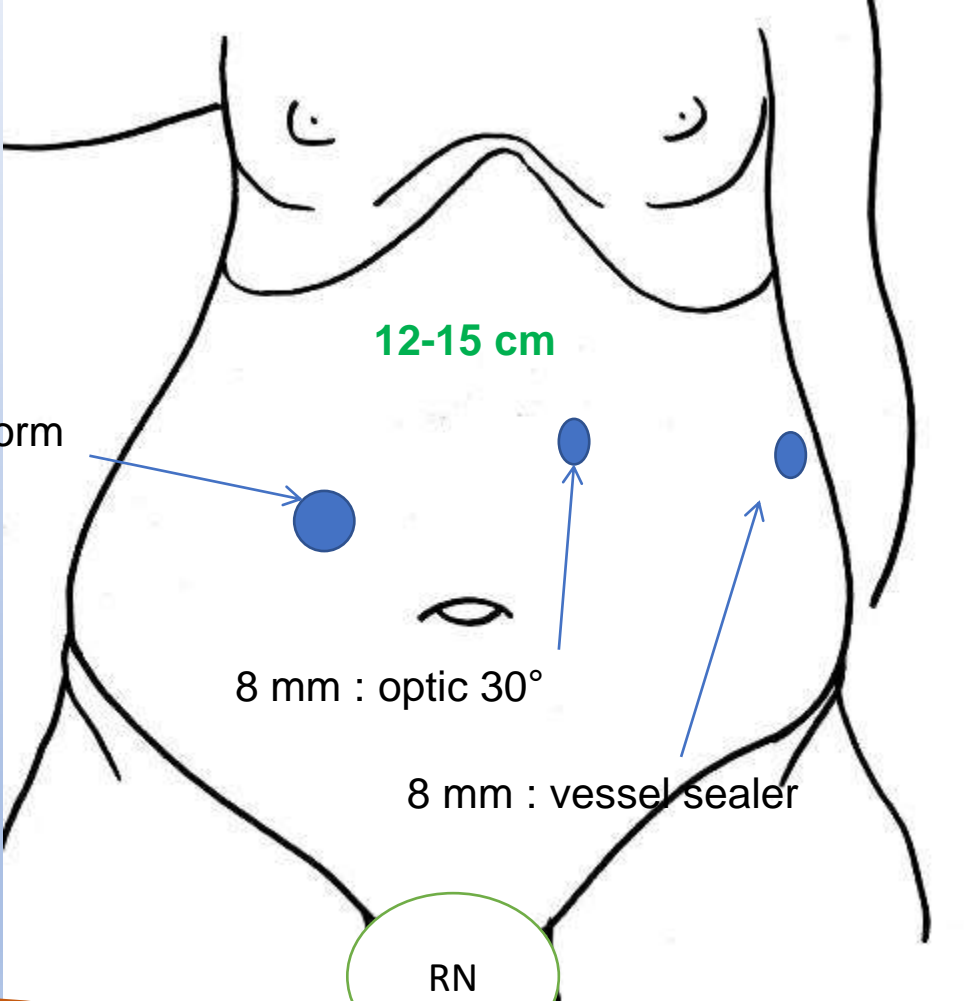
RN : robotic nurse

20° anti trendelembourg
5° right lateral inclination

Dissection 3-arm sleeve : exposure

Stappler 3-arm sleeve : how to manage the liver?

Advantages for surgeon:

- **Concept full robot : RRS with only robotic arms : complete autonomy**
  - Freedom of action, multiplies working capacity, better adaptation to anatomy, surgical condition and procedure.
  - Each arm has a fonction and can be used itself as a retractor for exposure especially the liver
  - Learning curve = maybe a safe technique for others more complex bariatric procedures SADI…
- **Anatomy in 3D : secure dissection in dangerous area, better approach of 3D volume sleeve, reduction of stappler loading**
  - Feature of surform (only one trocart) and more reliable stapling calculation algorithm
  - Operative time similar for both laparoscopic and robotic sleeve procedure
- **Dual console : perfect for teaching.**
  - Sleeve 3 arms : reduction cost and hospital stay

Cost Modelisation of sleeve laparoscopic and robotic, after learning curve
Hôpital de la Conception Marseille - 2020-2023
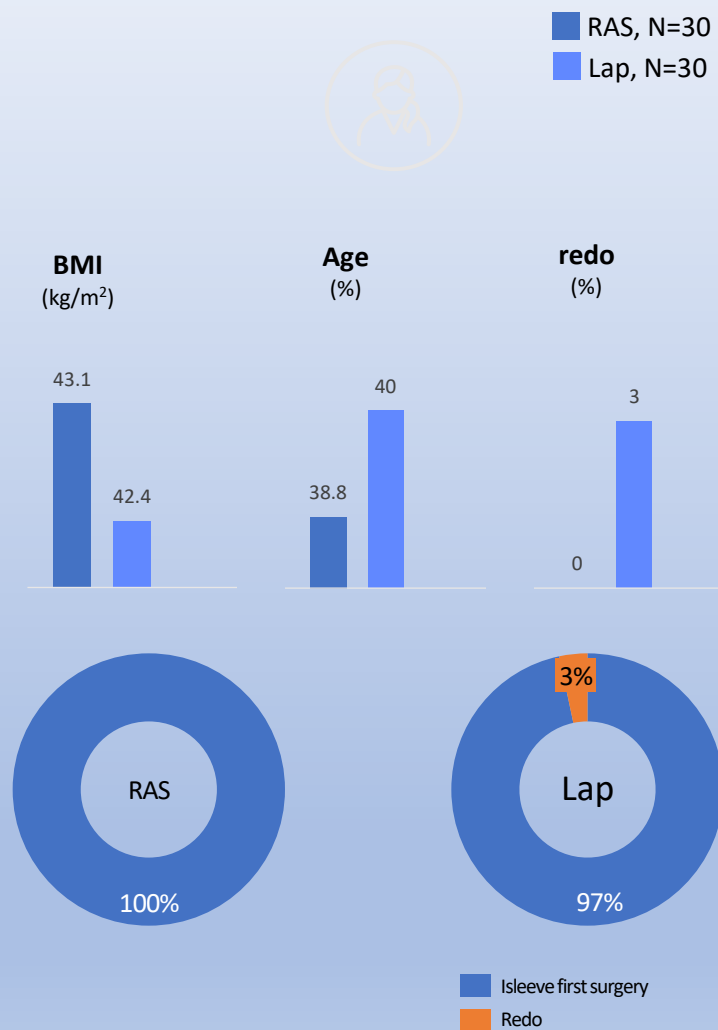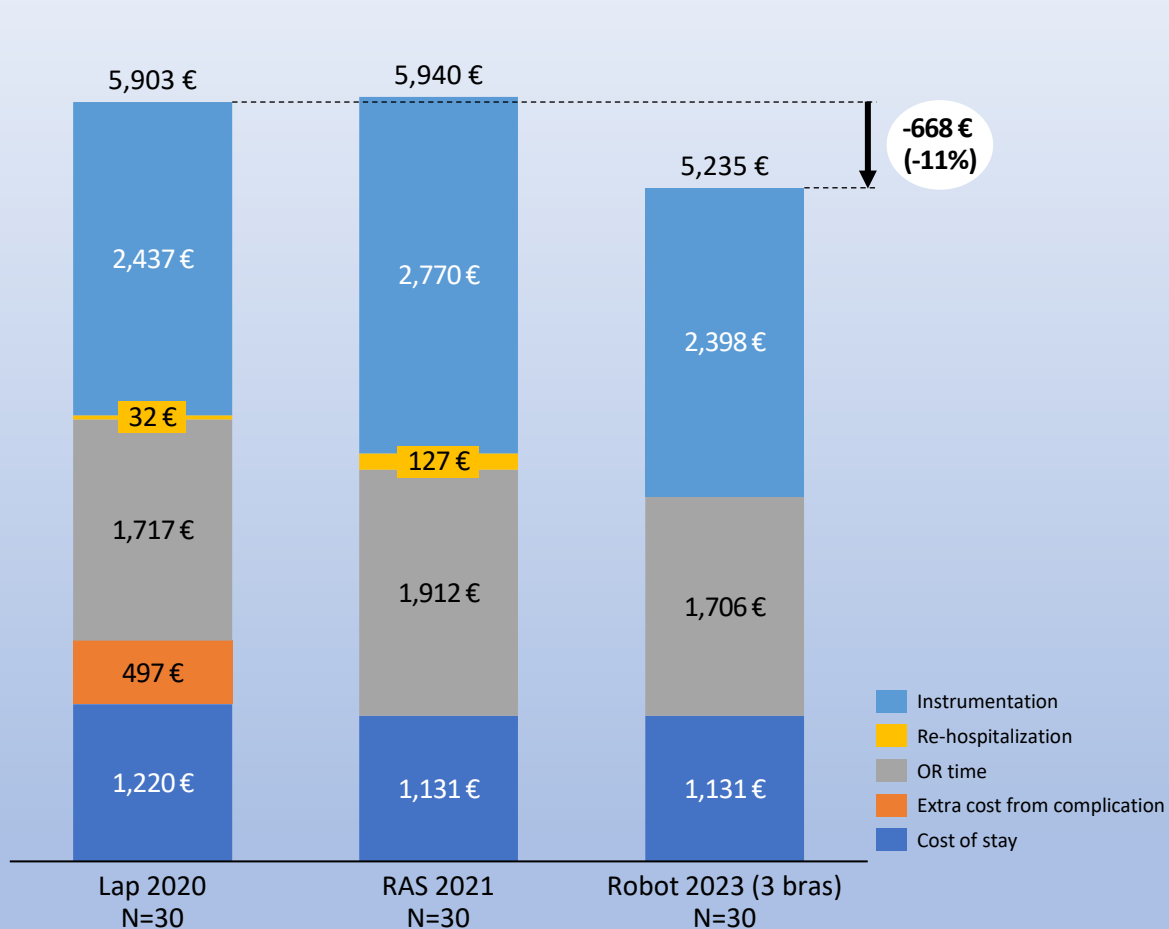
Robotic SG

Ideal for robotic experience	Faster learning curve	Less post operative pain
Ergonomique Advantage of Sureform	shorter Lenght of stay	Better view of dangerous area
Less complications	Similar results	Why don't you try sleeve 3 arms?

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disadvantages?

THANK YOU !