

A black and white photograph of a classical marble sculpture depicting three figures, likely a family or a group of people, in an intimate embrace. The figures are rendered with detailed, curly hair and soft features. The lighting is dramatic, highlighting the contours of their bodies and faces against a dark background.

**308° OMICS INTERNATIONAL CONFERENCE 2015  
WORLD CONGRESS ON BREAST CANCER  
BIRMINGHAM – August 3-5, 2015**

**THE BREAST CANCER. A COMPARISON AMONG  
DIFFERENT DIAGNOSTIC AND THERAPEUTIC PROTOCOLS**

**CATTIN F., SEMPRINI G.**

**Birmingham, August 5th, 2015**

# INTRODUCTION

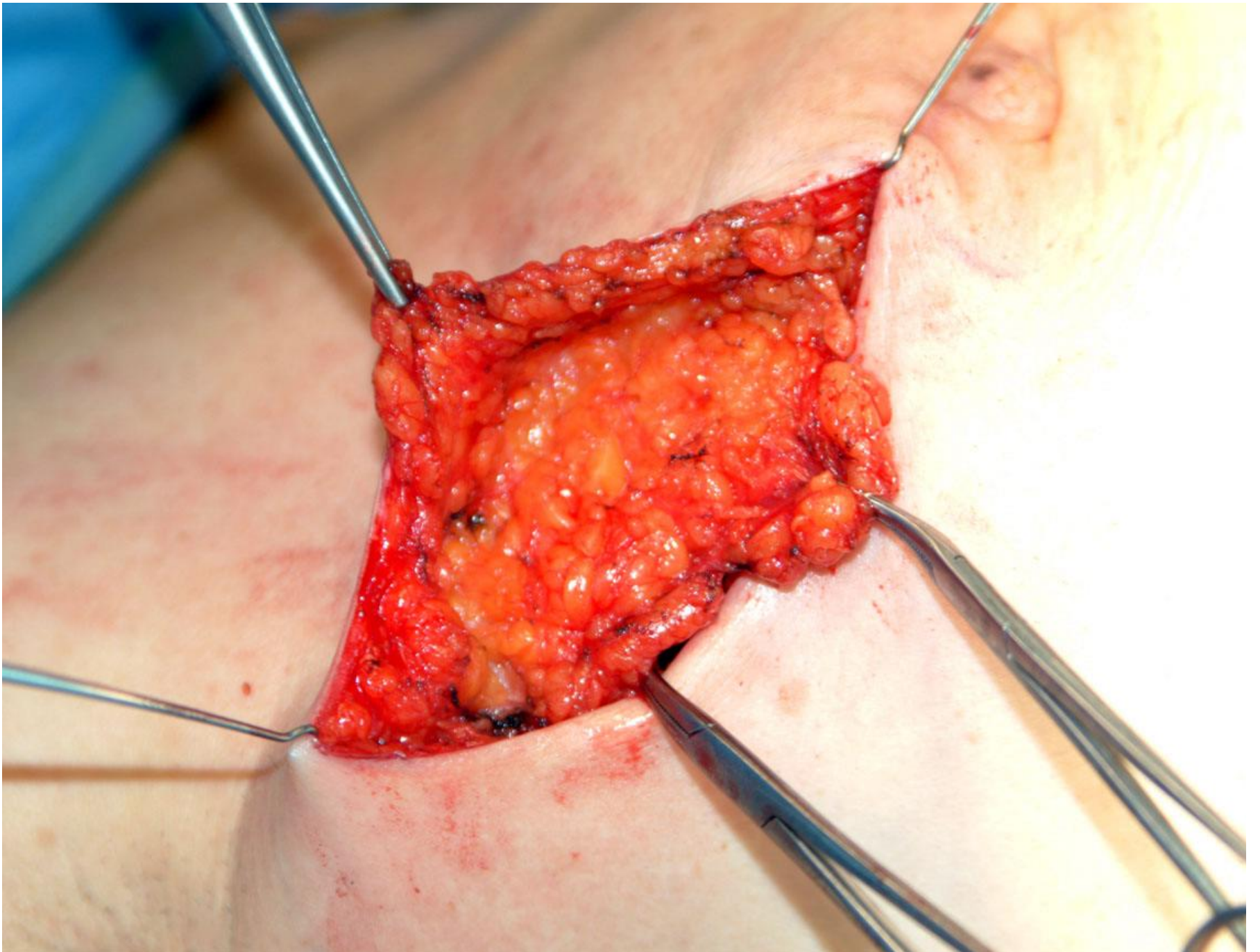
**Breast surgery has had a great development during the last century**

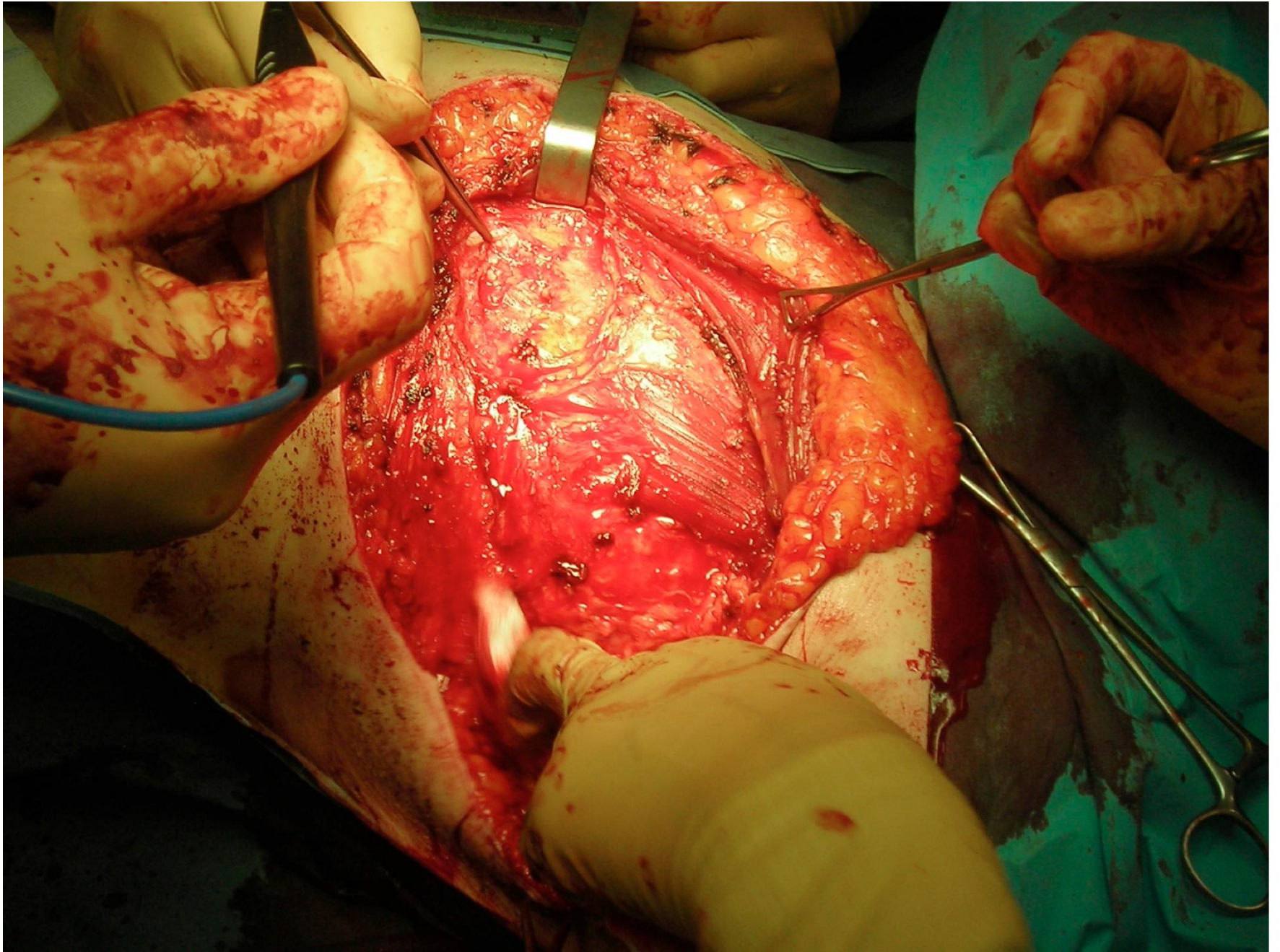
**MASTECTOMY (HALSTED 1906)**

**MASTECTOMY (PATEY 1948)**

**MASTECTOMY (MADDEN 1965)**

**CONSERVATIVE BREAST SURGERY  
(1985)**





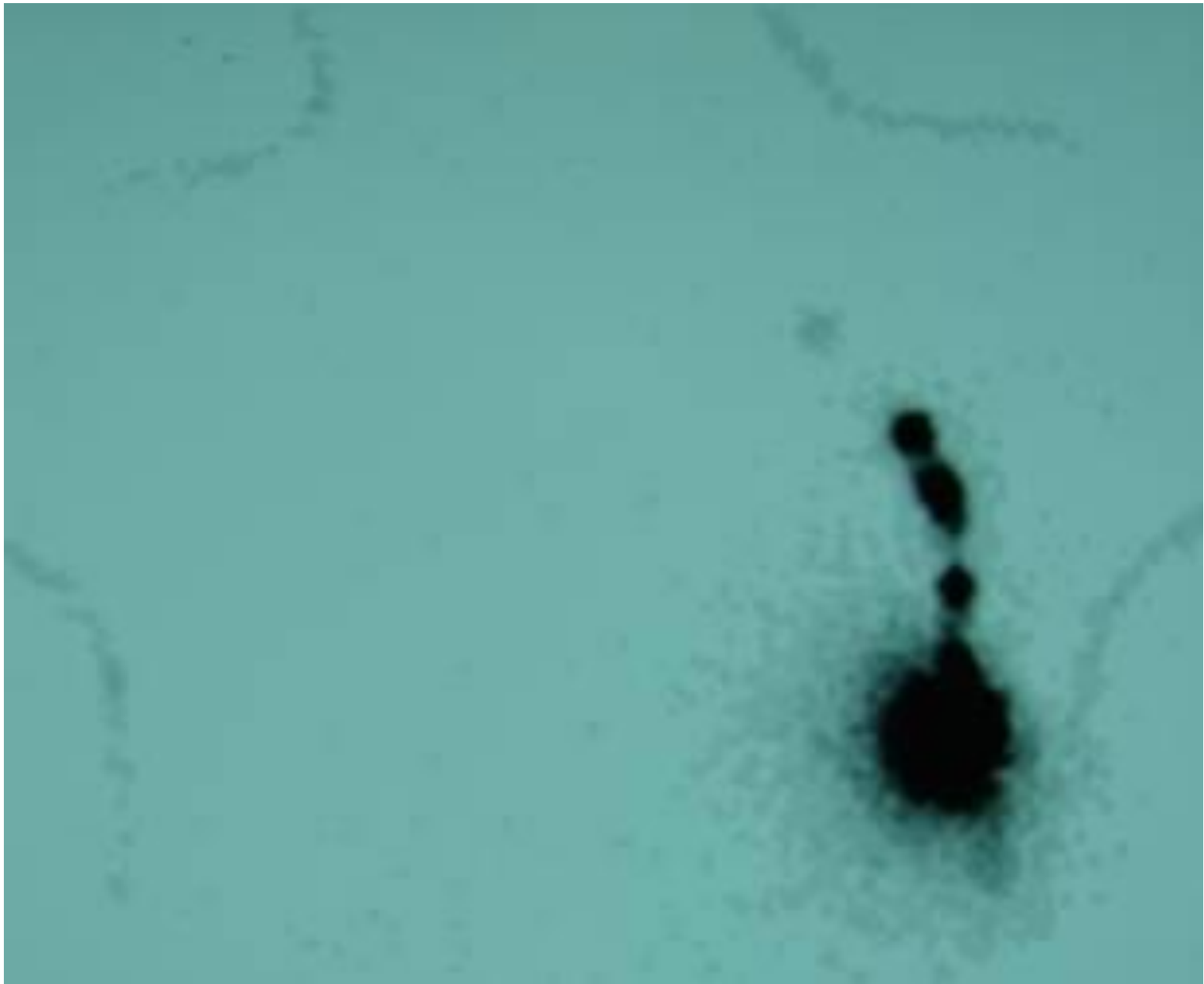
# INTRODUCTION

**Axillary surgery has had as well a great development during the last decades.**

COMPLETE AXILLARY RESECTION (XVII SECOLO)



SENTINEL LYMPHNODE(1994)



# INTRODUCTION

**Many possible diagnostic and therapeutic options**

**Many possible breast cancer managements considering time and diagnostic exams**

**NOWADAYS THERE IS NO AGREEMENT ABOUT THE BEST  
DIAGNOSTIC AND THERAPEUTIC PATHWAY**

**CLINICAL ACTIVITY IS ORGANIZED ACCORDING TO THE  
STRUCTURE AND THE REQUIREMENTS OF THE SINGLE HOSPITAL**

# INTRODUCTION

OUR STRUCTURE

WE OFFER  
MAMMOGRAPHY  
BREAST ULTRASOUND  
BREAST MRI

BREAST MRI IS OFFERED TO ALL  
THE PATIENTS

SLN SURGERY WITH IMMEDIATE PATHOLOGIST  
ANALYSIS



# INTRODUCTION

OTHER RENOWNED STRUCTURES

THEY OFFER  
MAMMOGRAPHY  
BREAST ULTRASOUND

BREAST MRI JUST IN  
SELECTED CASES

SLN SURGERY WITH IMMEDIATE  
PATHOLOGIST ANALYSIS

# INTRODUCTION

STANDARD PATHWAY

IT OFFERS  
MAMMOGRAPHY  
BREAST ULTRASOUND

BREAST MRI JUST IN SELECTED CASES

SLN SURGERY WITH DELAYED  
PATHOLOGIST ANALYSIS

# BREAST MRI

## PROS:

FUNCTIONAL EXAM  
ANALLERGIC CM  
HIGH SENSIBILITY  
LOW FALSE NEGATIVES  
FINDS PATHOLOGIC MICROSPOTS

## CONS:

LOW SPECIFICITY  
HIGH FALSE POSITIVES

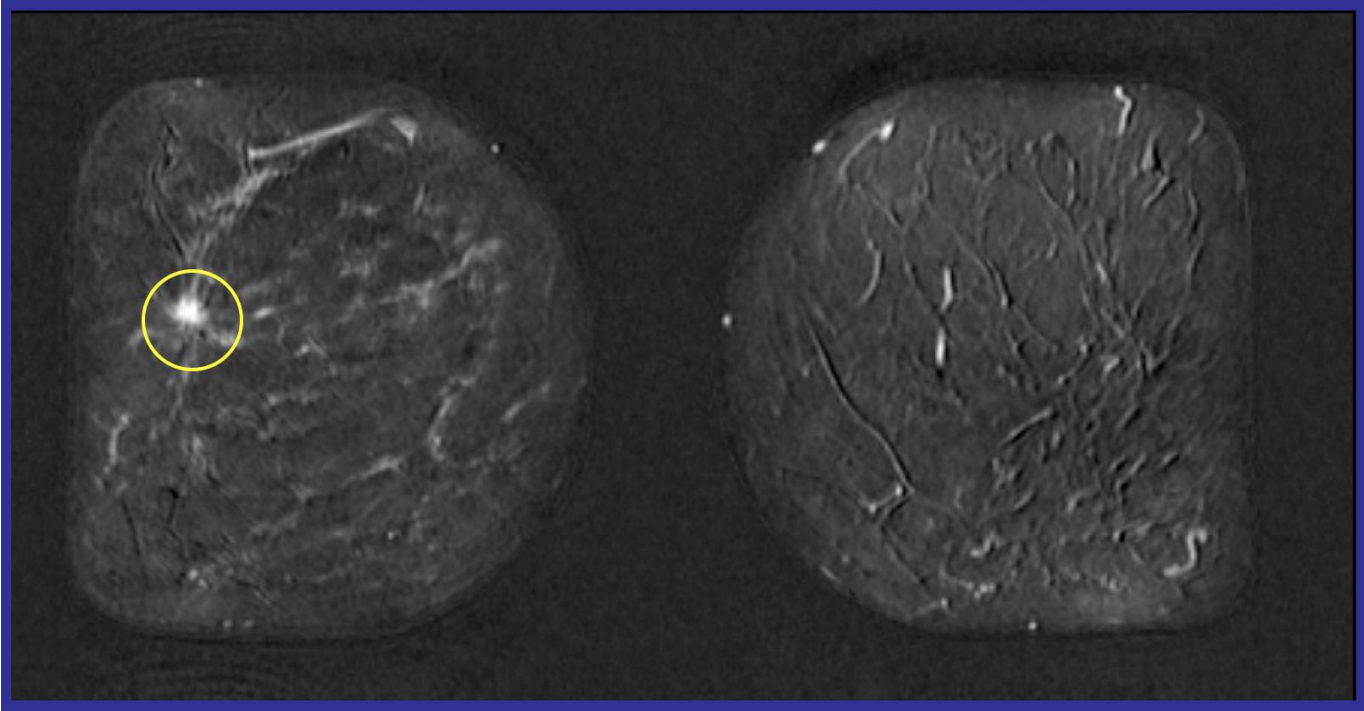
# IMMEDIATE ANALYSIS OF SLN

## PROS:

IMMEDIATE RESULTS  
CLEAR SURGICAL STRATEGY

## CONS:

TIME FOR ANALYSIS



# AIM OF THE STUDY

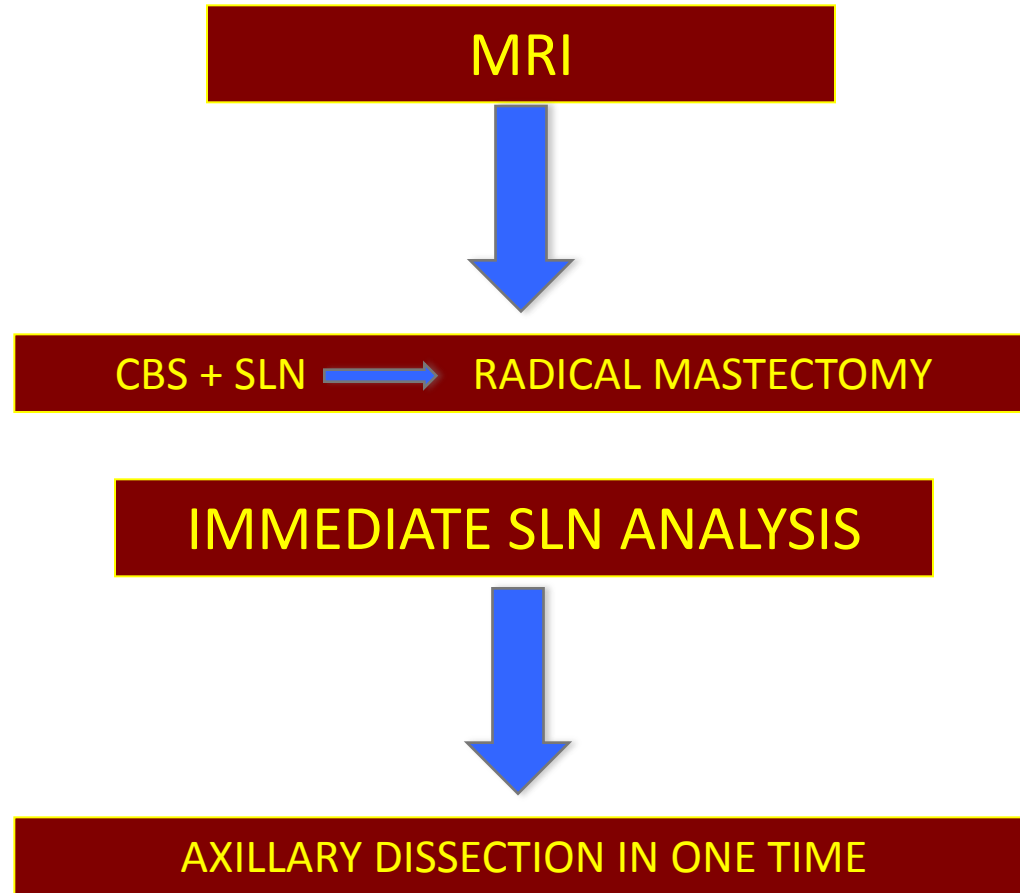
MRI and SLN analysis are an additional cost when considering the other pathways

**BUT**

They may lead to a preoperative/intraoperative correction of the projected surgery

**They may then AVOID second operations to obtain a R0 surgery.**

# AIM OF THE STUDY



# AIM OF THE STUDY

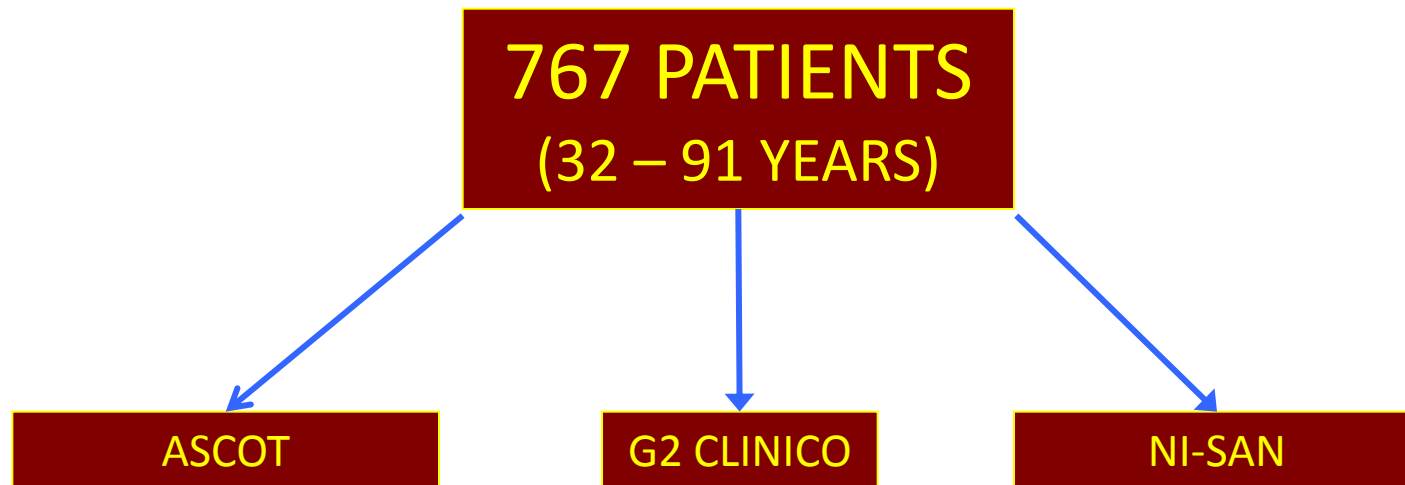
ETHICAL CONVENIENCE

IS IT EXPENSIVE?



# MATERIALS AND METHODS

Duration of the study: november 2005 – december 2010





# MATERIALS AND METHODS

## Analysis of:

- **MRI**
  - Done/not done
  - Comparison with basic diagnostic exams (Mx, US)
  - Efficacy in modifying the therapeutic pathway
  - **Kind of operation**
  - SLN biopsy
  - Dissemination
  - Immediate axillary dissection
- **Surgery duration (hours)**
- **Hospital stay (days)**

# **MATERIALS AND METHODS**

## **Analysis :**

- **OR costs for each minute (personnel, structure and instruments)**
- **SLN analysis (immediate/delayed)**
- **Hospital stay costs (days)**
- **Costs of a delayed axillary dissection operation**

# MATERIALS AND METHODS

THE COST PARAMETERS HAVE BEEN APPLIED TO ALL THE THREE POSSIBLE PATHWAYS

OUR CENTER

RENOWNED CENTERS

EVENTUAL REOPERATION: RADICAL MASTECTOMY

STANDARD PATHWAY

TWO EVENTUAL REOPERATIONS:

RADICAL MASTECTOMY

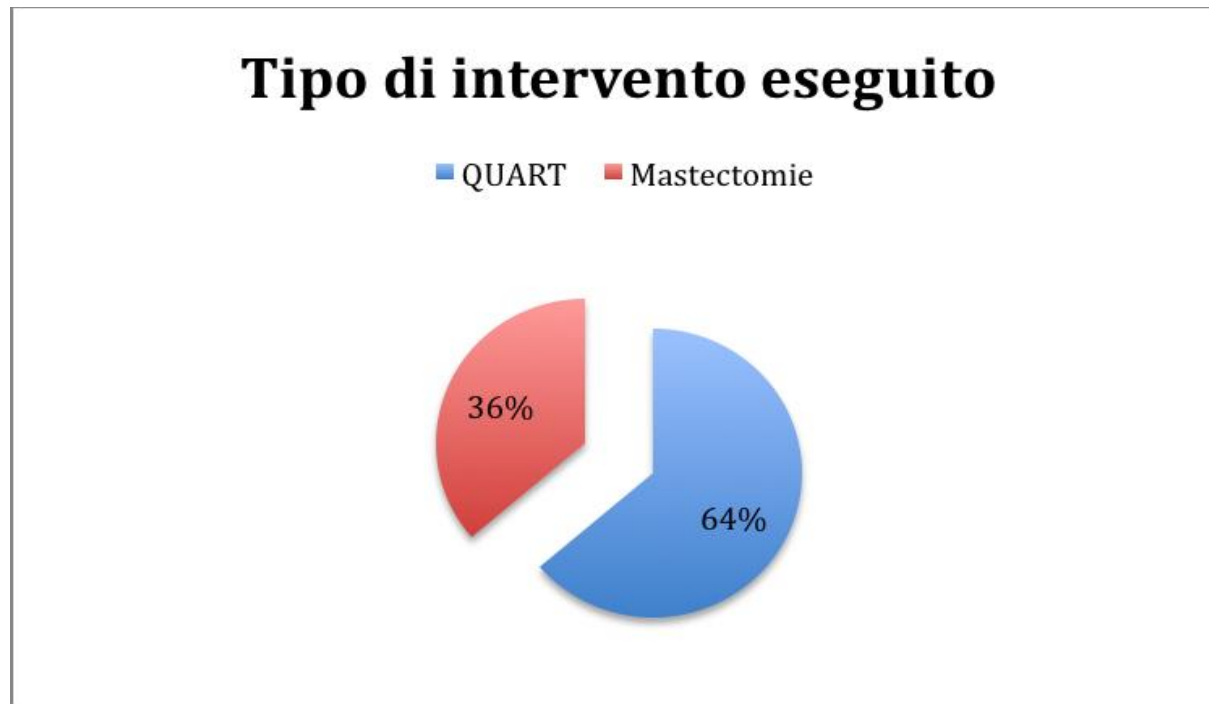
DELAYED AXILLARY DISSECTION

# RESULTS

766 Females, 1 male

489 BCS (63.7%)

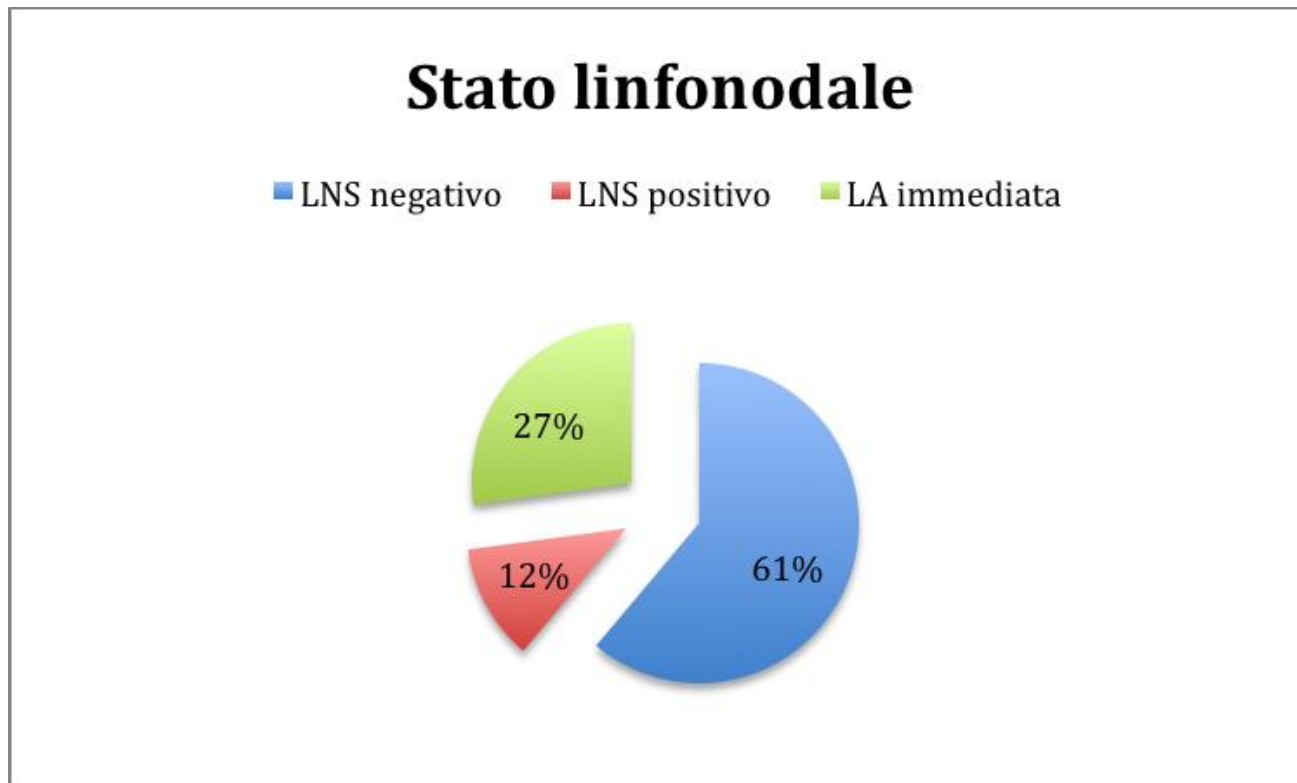
278 mastectomies (36.3%)



# RESULTS

SLN biopsy in 559 cases (72.9%)

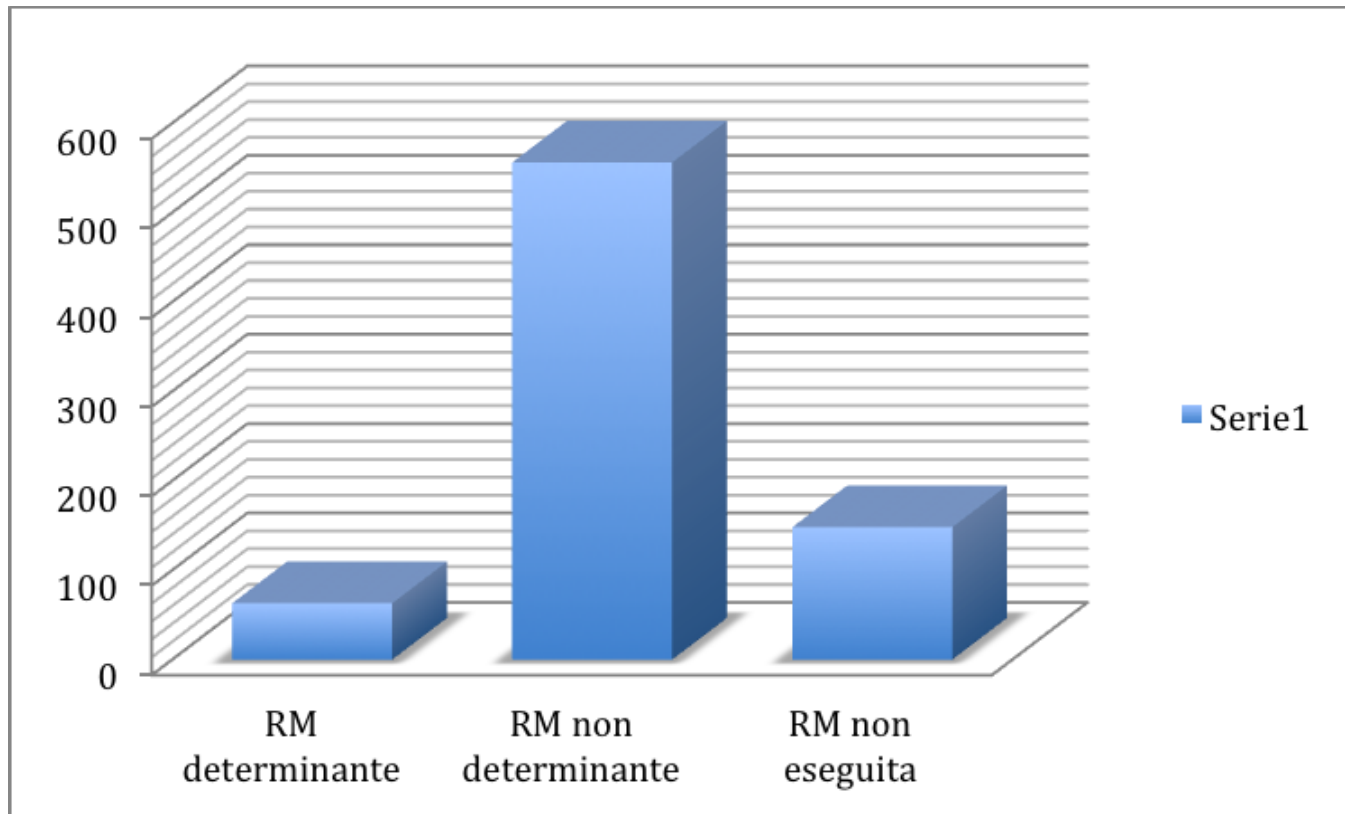
Positive search in 90 cases (16.1%)



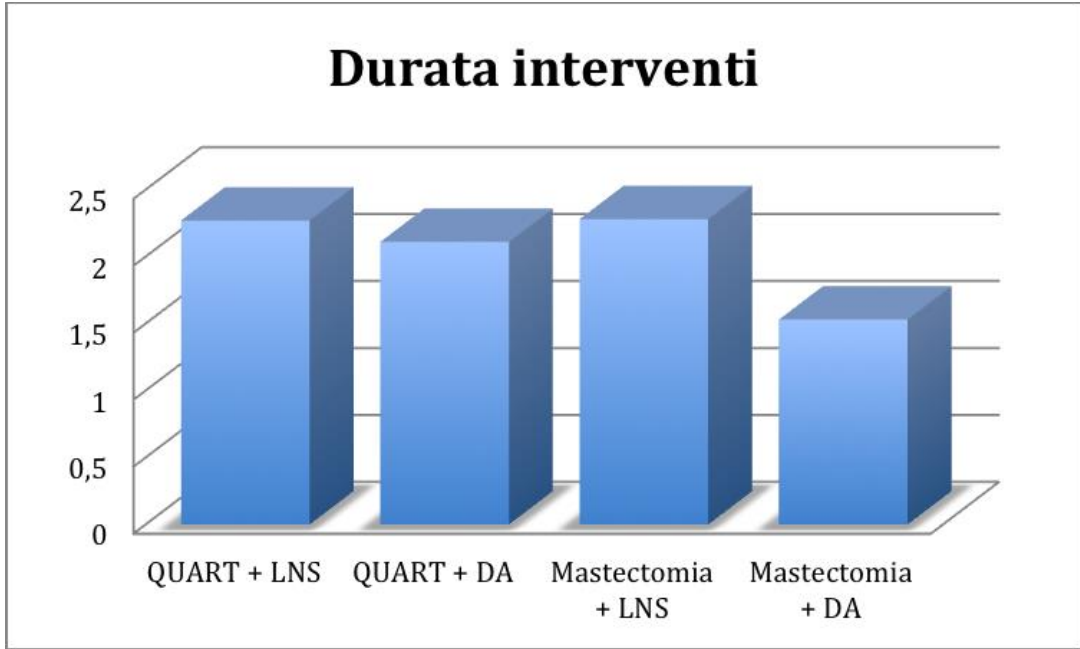
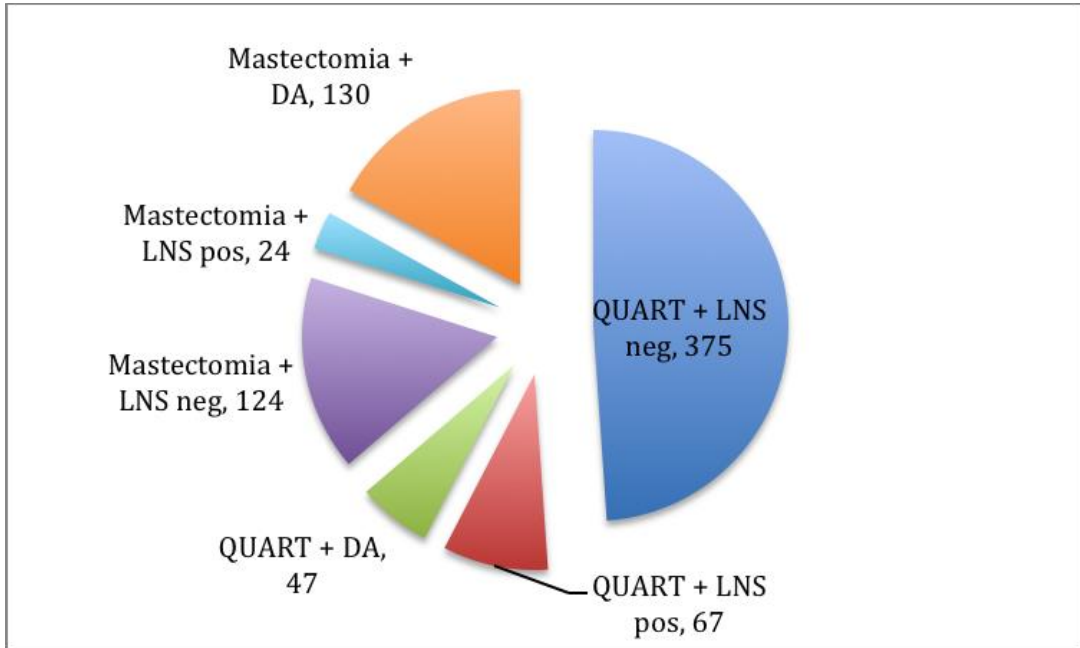
# RESULTS

**MRI performed and evaluable in 619 cases (80.7%)**

**Change of therapeutic plan in 63 cases(10.1%)**

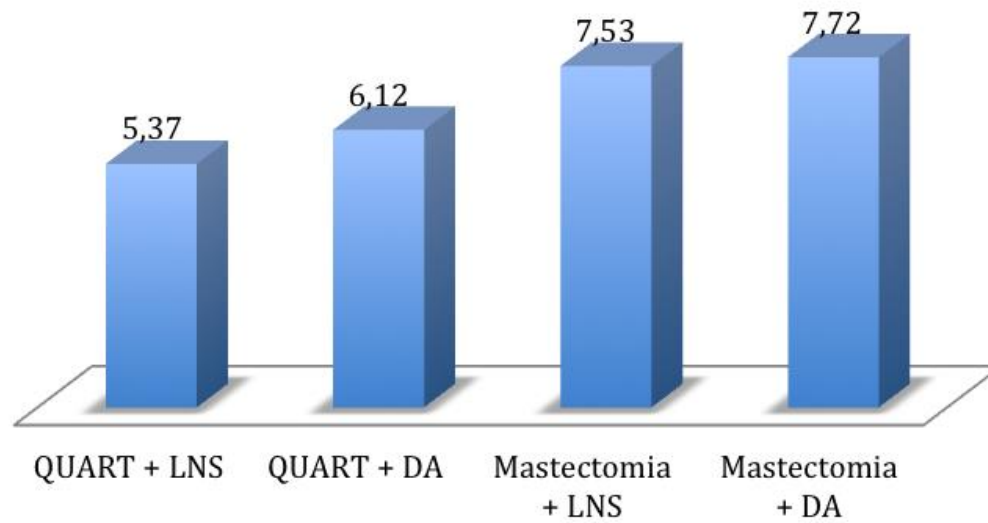


**TIPO DI INTERVENTO****NUMERO DI INTERVENTI****QUART + LNS****375 (48.9%)****QUART + DA per LNS positivo****67 (8.7%)****QUART + DA****47 (6.2%)****Mastectomia + LNS****124 (16.2%)****Mastectomia + DA per LNS positivo****24 (3.1%)****Mastectomia + DA****130 (16.9%)****767 (100%)**





## Durata degenza



# RESULTS

COST OF ONE MRI: 323€

ONE DAY OF HOSPITAL STAY: 570€

IMMEDIATE SLN EVALUATION:  
112€

DELAYED SLN EVALUATION:  
107€

# RESULTS

OR COST PER MINUTE (ALL INCLUDED):

9.4€ BCS

8.9€ MASTECTOMY

COST OF A SINGLE DELAYED AXILLARY DISSECTION:

4081€

COST OF SURGICAL RADICALIZATION:

5717€

MRI EXCLUDED: 5394€

# RESULTS

OUR STRUCTURE

3.825.890€

RENOVVED STRUCTURES

3.973.722€

STANDARD PATHWAY

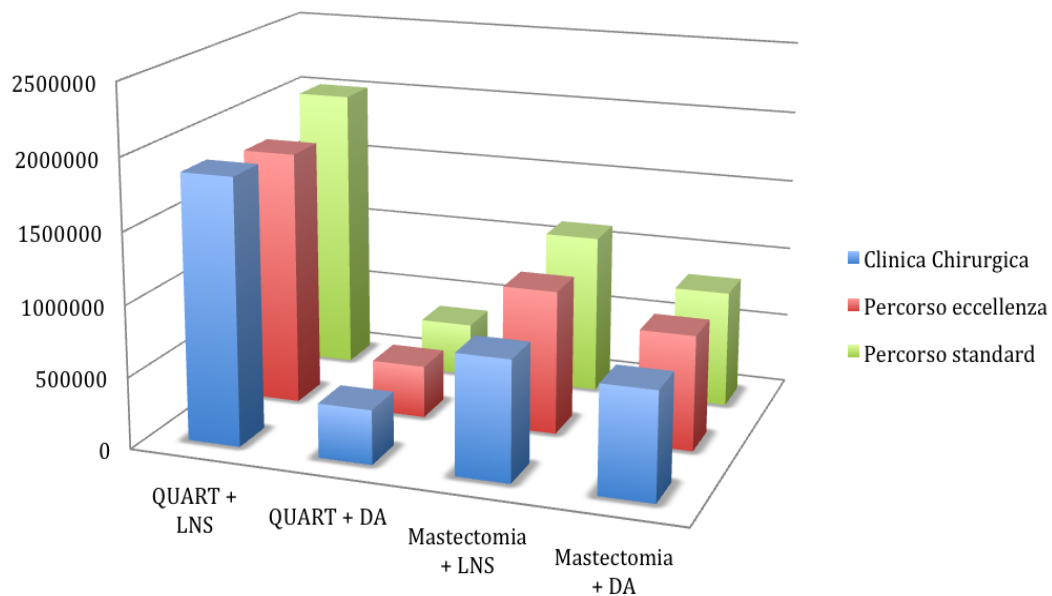
4.339.588€

# RESULTS

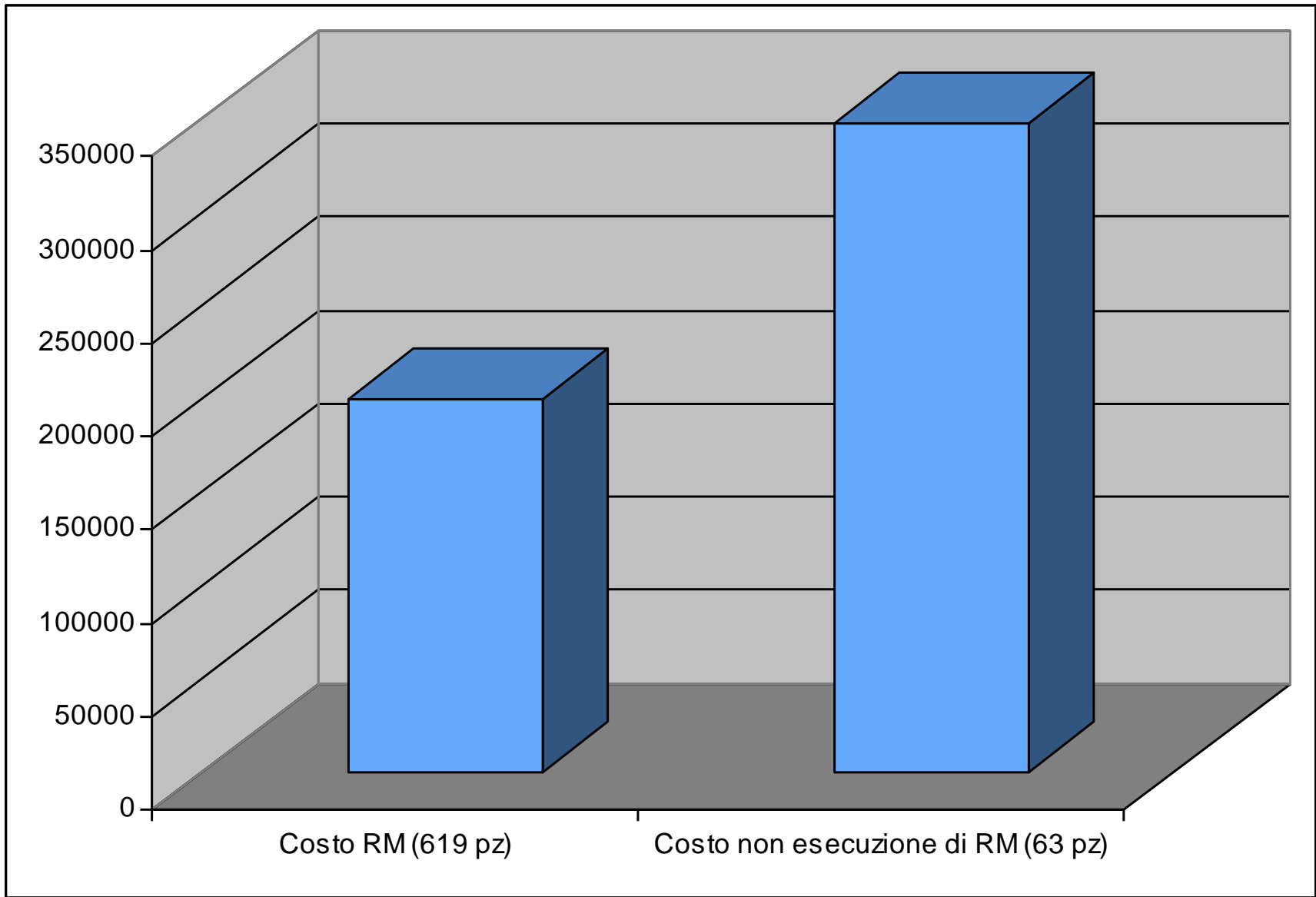
SAVING  
RENOWNED CENTERS  
147.832€

SAVING  
STANDARD PATHWAY  
513.698€

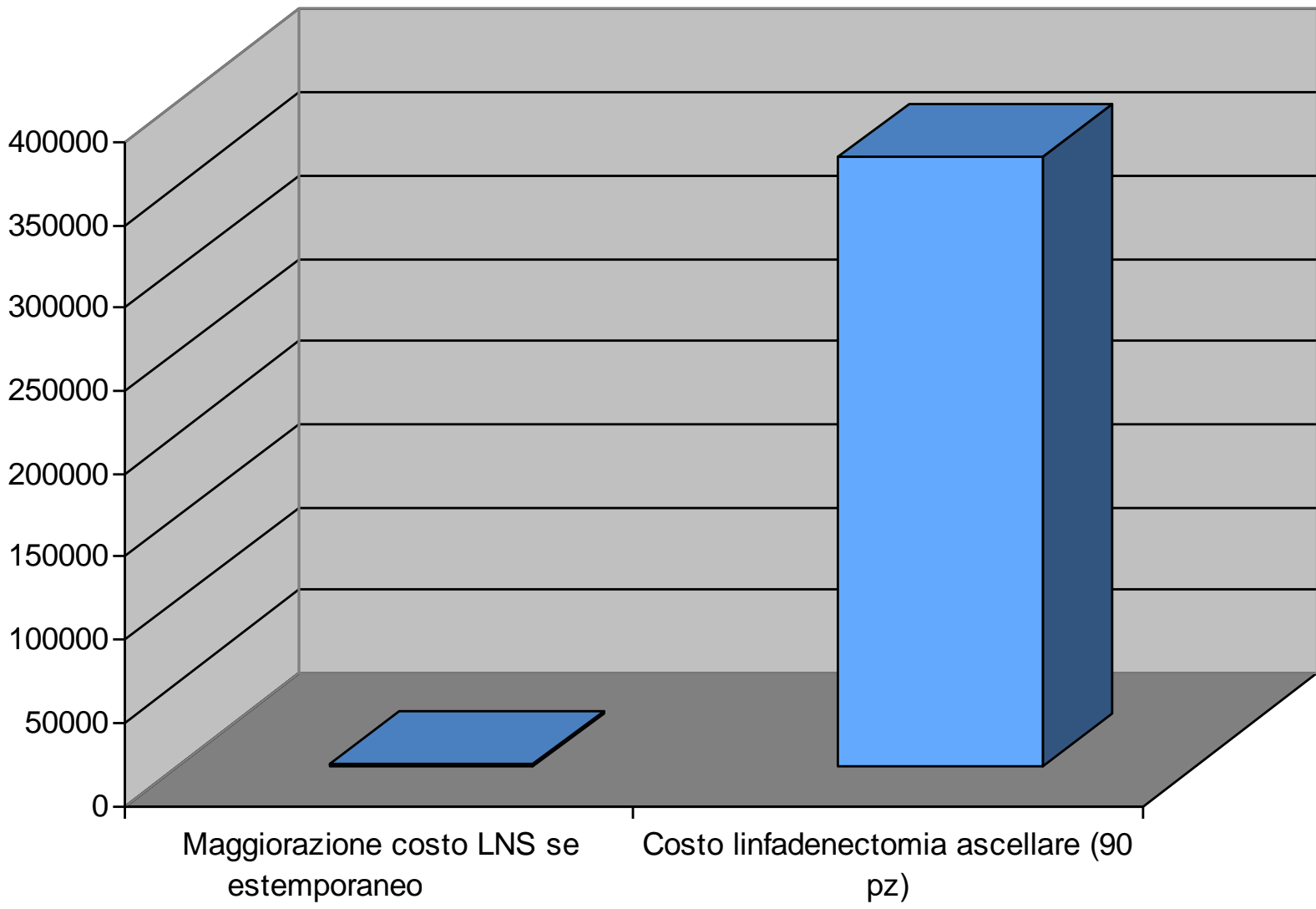
## Costo per intervento



	Clinica Udine	Percorso eccellenza	Percorso standard
<b>QUART + LNS</b>	1.861.039	1.796.657	2.016.852
<b>QUART + DA</b>	378.221	366.714	377.177
<b>Mastectomia + LNS</b>	837.438	1.006.209	1.125.328
<b>Mastectomia + DA</b>	749.192	804.142	820.231



**BREAK EVENT POINT: 37 PATIENTS**



**BREAK EVENT POINT: <1 PATIENT**



# DISCUSSION

MRI IS A TOLERABLE EXAM

4/619 PATIENTS

IMMEDIATE SLN BIOPSY IS A CORRECT CHOICE

ETHICALLY CORRECT RESULTS

ECONOMICALLY CHEAPER

# CONCLUSIONS

OPTIMIZING THE ECONOMIC RESOURCES WITHOUT  
MODIFYING THE QUALITY PARAMETERS IS

FAIR

CONSCIOUS

USEFUL

	PERCORSO ECCELLENZA	PERCORSO STANDARD
<b>RM MAMMARIA</b>	458	1590
<b>GIORNI DEGENZA</b>	259	901
<b>LNS ESTEMPORANEO</b>	1320	4676
<b>LNS DEFINITIVO</b>	1382	4801
<b>QUART + LNS</b>	32	118
<b>QUART + DA</b>	19	67
<b>MASTECTOMIA + LNS</b>	26	89
<b>MASTECTOMIA + DA</b>	24	84
<b>PERSONALE MEDICO (UN ANNO)</b>	1	4
<b>PERSONALE INFERMIERISTICO (UN ANNO)</b>	4	12
<b>PERSONALE OSS (UN ANNO)</b>	5	16