

*Extending the Level of Pelvic  
Lymph Node Dissection up to  
the Aortic Bifurcation in the  
Management of Bladder Cancer*



# INTRODUCTION & AIM OF WORK

# Introduction

- **Bladder cancer is the most common malignant tumor in Egypt El-Sebai.**
- **26.4% of all cancers Mokhtar.**
- **Squamous cell carcinoma in schistosomal series is related to squamous metaplasia of the urothelium Khafagy.**
- **Other histopathological types are also seen in increasing numbers El-Bolkainy.**

# Introduction

- **Incidence of nodal involvement in the Egyptian series.**
- **The presence of positive nodes above the common iliac bifurcation indicates that the disease is no longer loco-regional Ghoneim.**
- **The impact of pelvic lymph node dissection on the survival of patients with lymph node positive bladder cancer is controversial Vieweg.**

# Introduction

- **Better survival is probably in those patients with internal iliac nodes, provided that these nodes are meticulously removed William.**
- **Does extended pelvic lymphadenectomy truly contribute to the management of bladder cancer? Ariyoshi.**
- **Asgar assessed the influence of the limits of pelvic lymph node dissection on survival . Skinner advocated that an extended lymphadenectomy up to the aortic bifurcation is necessary.**

# Aim Of work

## *Evaluation*


- **Nodal involvement**
- **Histopathological types**
- **Morbidity**

## *Correlation*

- **Demographic and Clinicopathological variables & node involvement**

## *Recognition*

- **Value**



# PATIENTS & METHODS

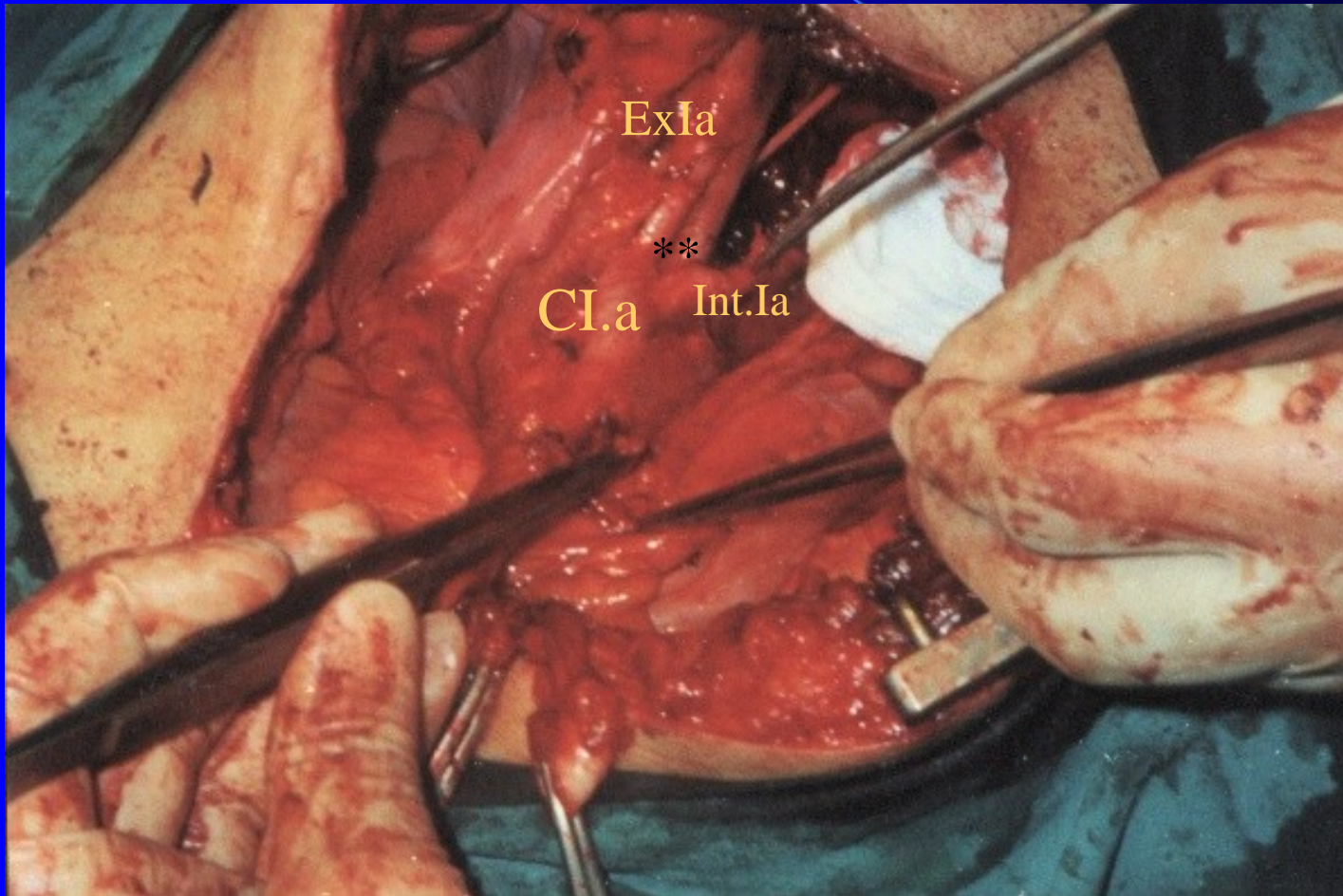
# Patients & Methods

**One hundred and nine (96 male and 13 female) patients**

- **History**
- **General examination**
- **Laboratory**
- **Radiological**
- **Clinical staging**
- **Surgical**

# Patients & Methods

## Pelvic Lymphadenectomy



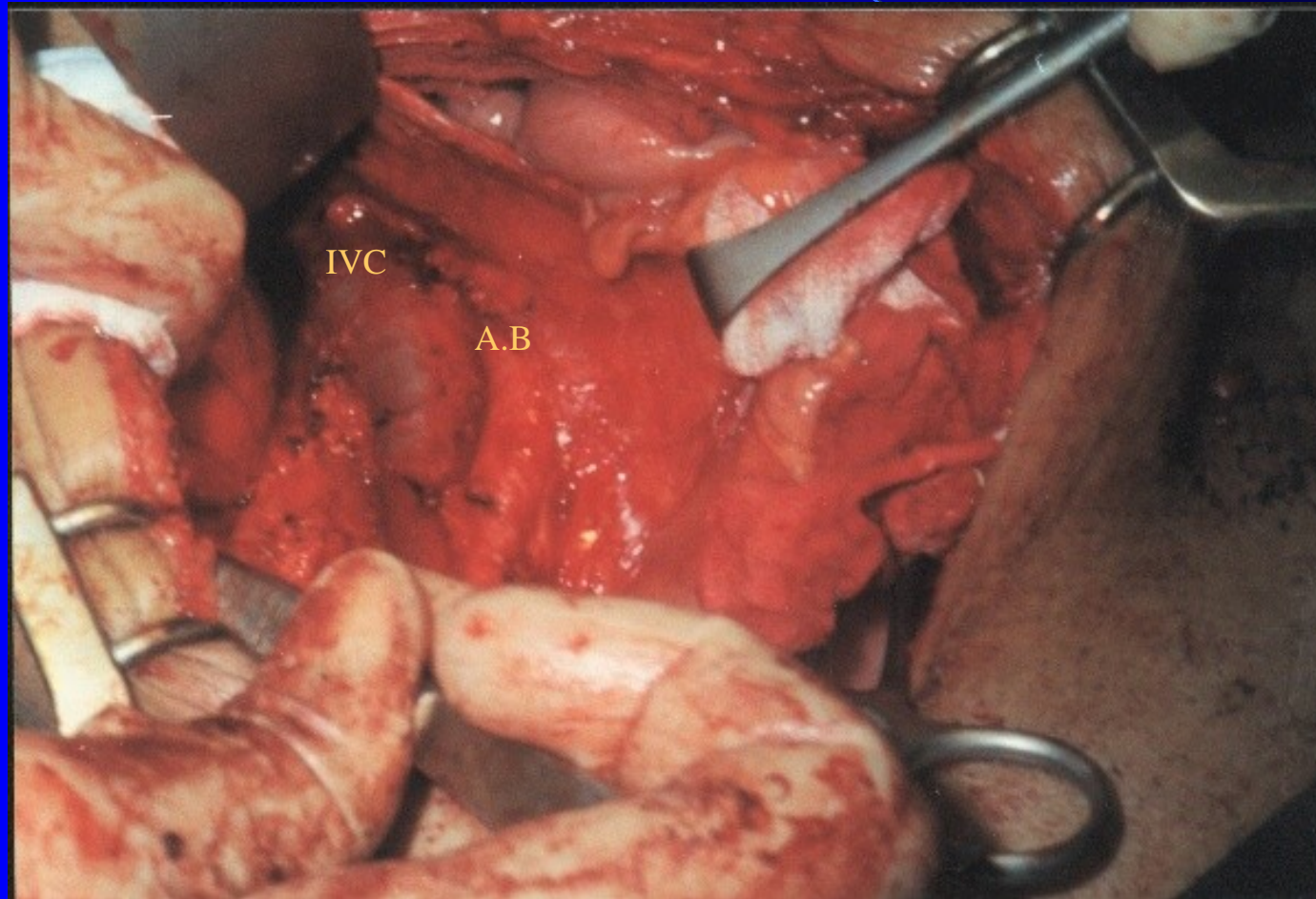
# Patients & Methods

## Extending lymphadenectomy Left Side



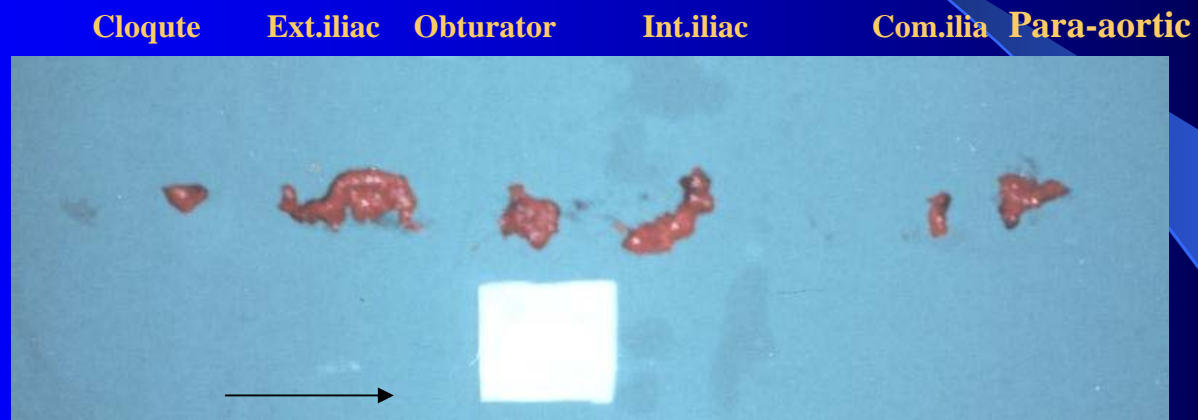
# Patients & Methods

Extending lymphadenectomy  
Right Side.



# Patients & Methods

Excised Nodes of Left Side.



# Patients & Methods

## Excised Nodes of Right Side.

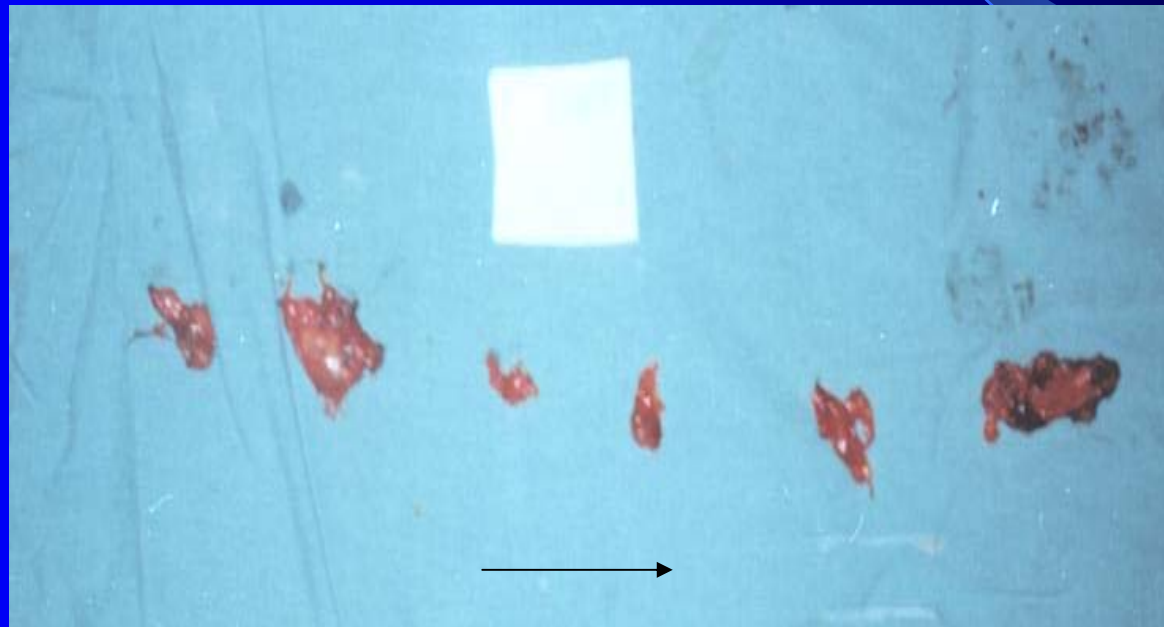
Cloquite

Ext.ilic Obturator.

Int.ilic

C. iliac

Para-aortic

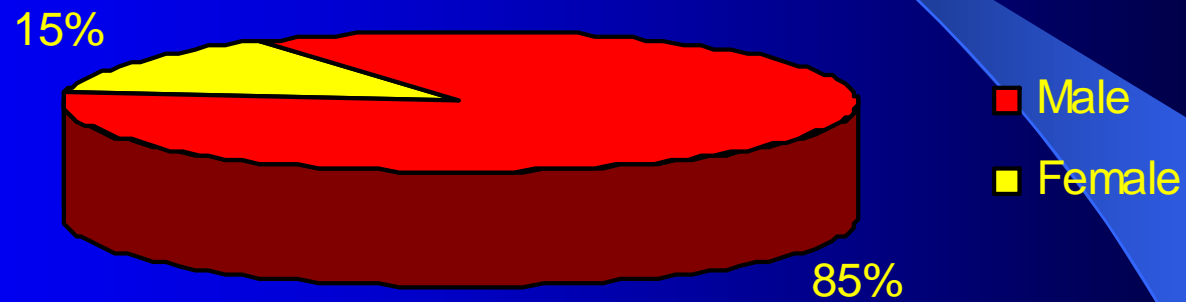


# RESULTS

The image features a blue gradient background that transitions from a lighter blue on the left to a darker blue on the right. A curved line starts at the top left and curves towards the bottom right, creating a wedge-shaped area on the right side. The word "RESULTS" is written in a bold, yellow, serif font, centered horizontally in the middle of the image.

# Results

## Sex Distribution



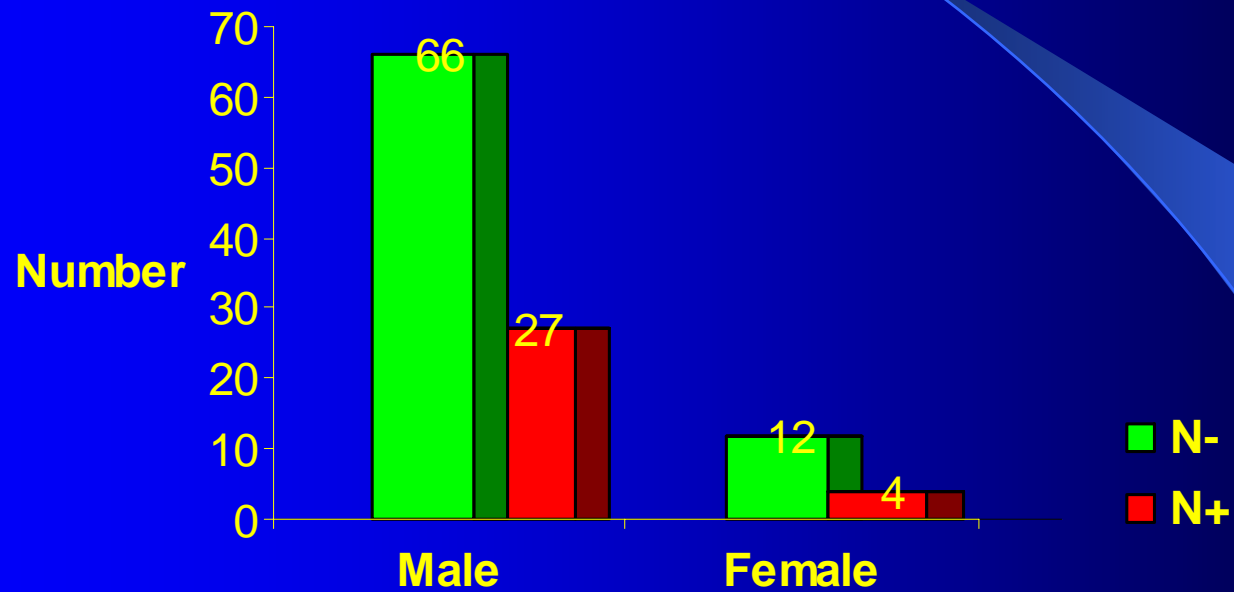
M/F 5.6 :1

● El-Said 4:1

● Ibraheim 5:1

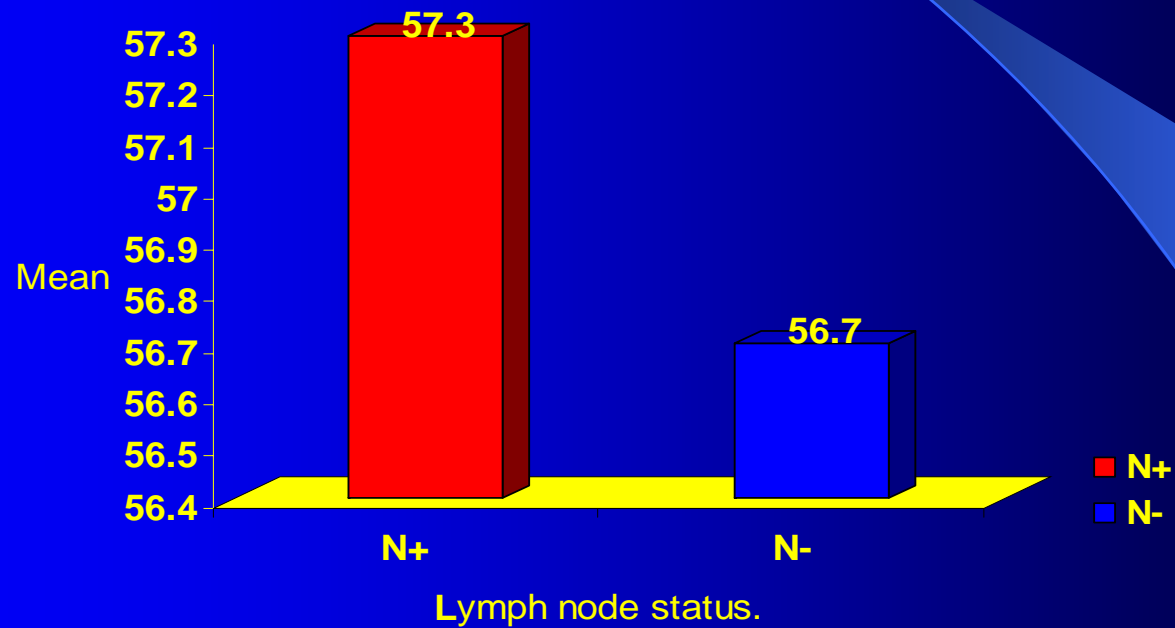
# Results

## Nodal Involvement in Male and Female Patients.



# Results

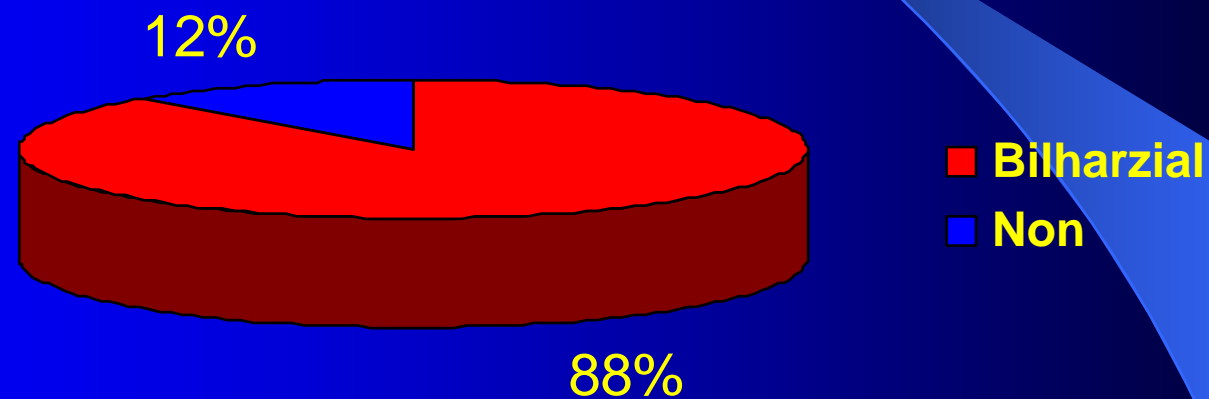
Mean Age in Node Positive and Node Negative Patients.



NCI 1983-- fifth decade

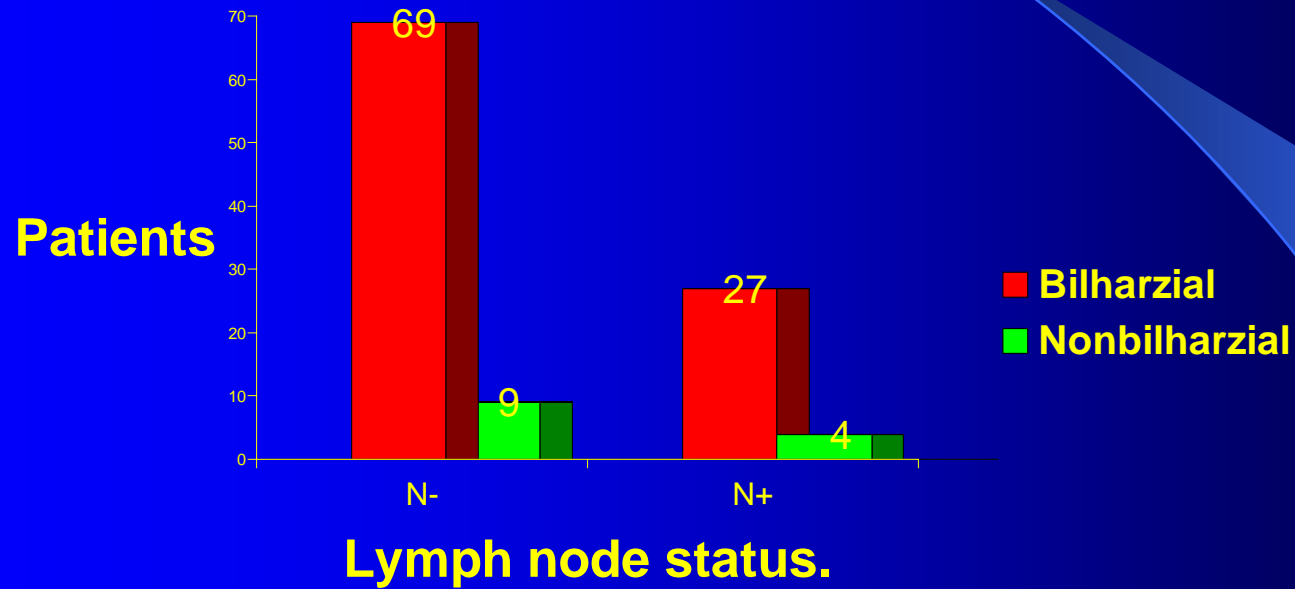
# Results

Bilharzial Infection Among 109 Bladder Cancer Patients.



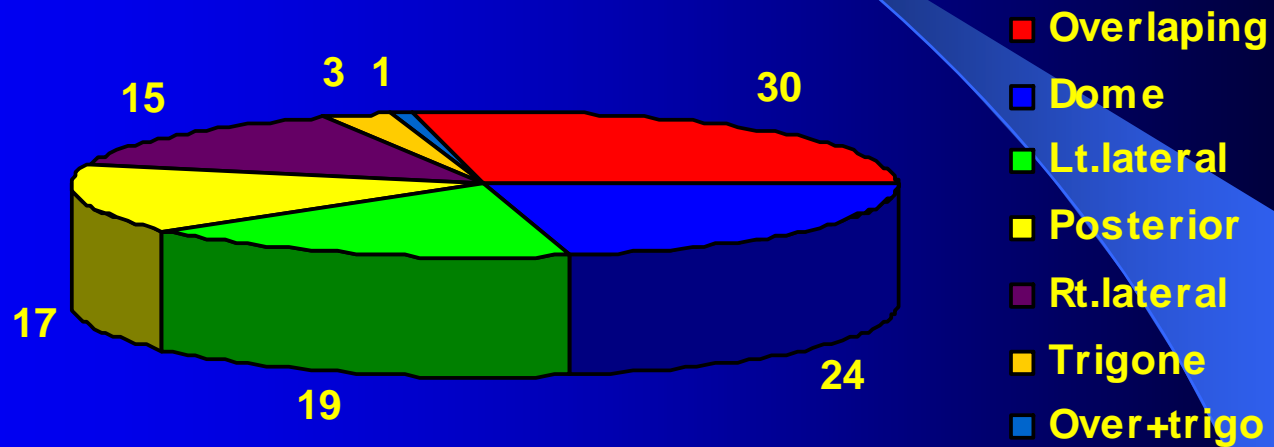
# Results

Node Positive and Node Negative Patients with or Without Bilharziasis.



# Results

Tumour Site in 109 Bladder Cancer Patients.



## Number of Harvested regional & juxtaregional lymph nodes.

Lymph Node Groups	No.	%
Perivesical	183	8.7
Lymph node of Cloquet	172	8.2
External iliac	608	29.2
Internal iliac	290	13.9
Obturator	367	17.6
Common iliac	261	12.5
Para-aortic	203	9.7
<b>Total</b>	<b>2084</b>	<b>100</b>

# Incidence of positive nodes

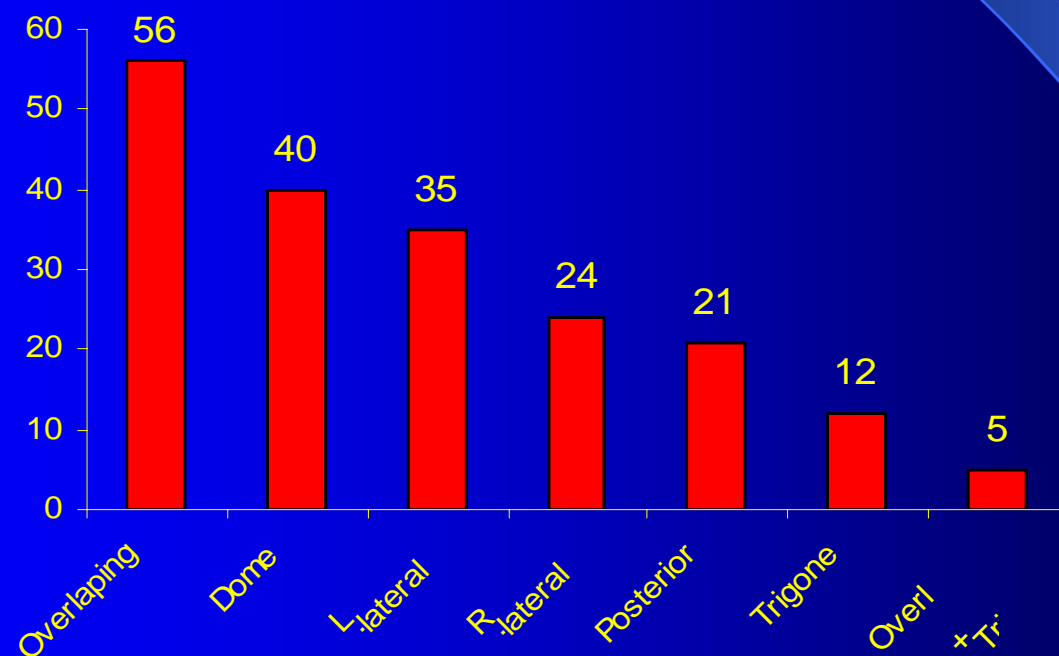
- Total No. of Nodes 2084
- Positive LN: 114
- Negative LN 1970

## Distribution of 114 Positive Lymph Nodes

Nodal site	Rt	Lt.	Total	%
Obturator	18	12	30	26
Ext. iliac	11	12	23	20
Int. iliac	8	8	16	14.9
Para-aortic	9	6	15	13
Peri-vesical	0	0	15	13
Common iliac	8	5	13	11.4
Cloquet	2	0	2	1.7
<b>Total</b>	<b>56</b>	<b>43</b>	<b>114</b>	<b>100</b>

# Results

## Tumour Site & Number of Harvested Right Obturator Nodes



P-value 0.001

Highly significant

# Results

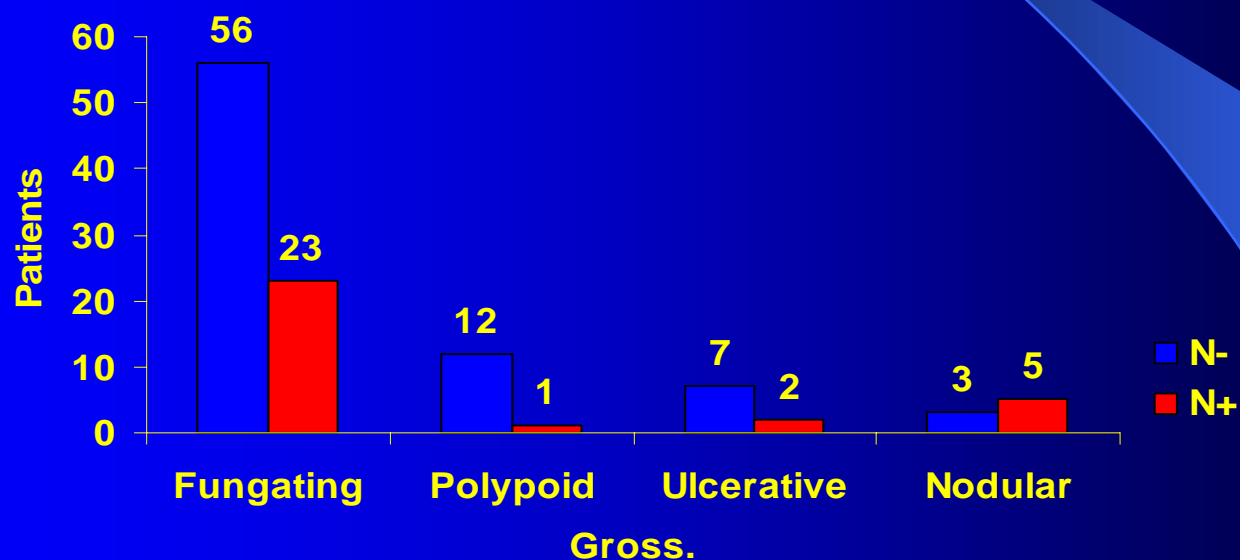
## Tumour Size & Lymph Node Status

	N0		N1	
	Mean	SD	Mean	SD
Size	5.42	2.06	6.55	2.40
P-value	0.014*			

**Significant**

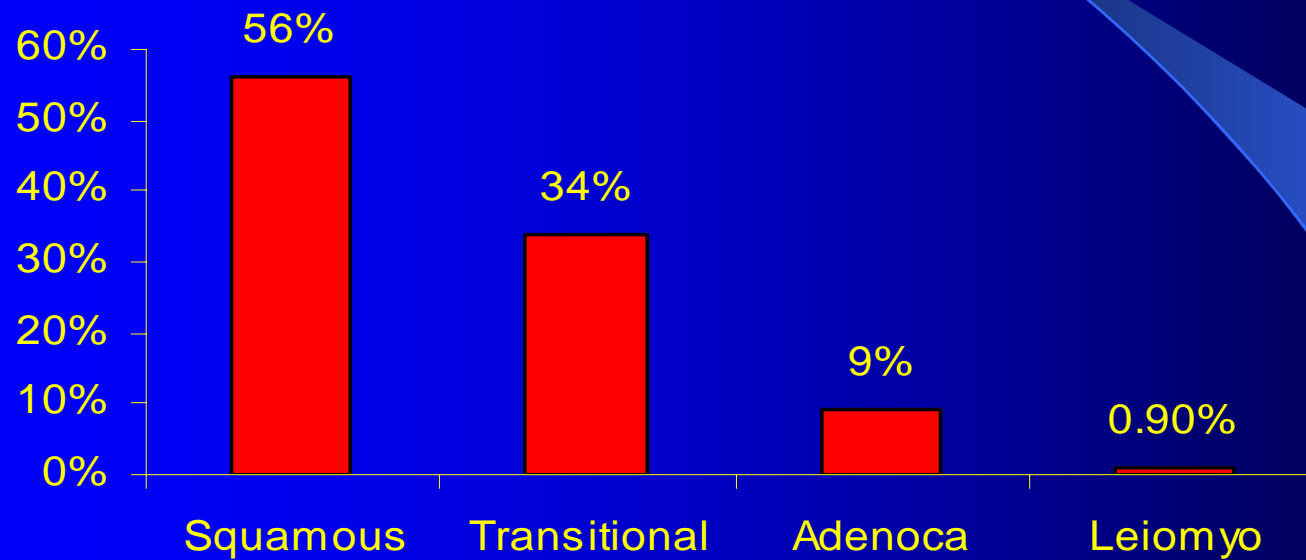
# Results

Node positive and Node Negative Patients According to Gross appearance.



# Results

## Histopathological Types

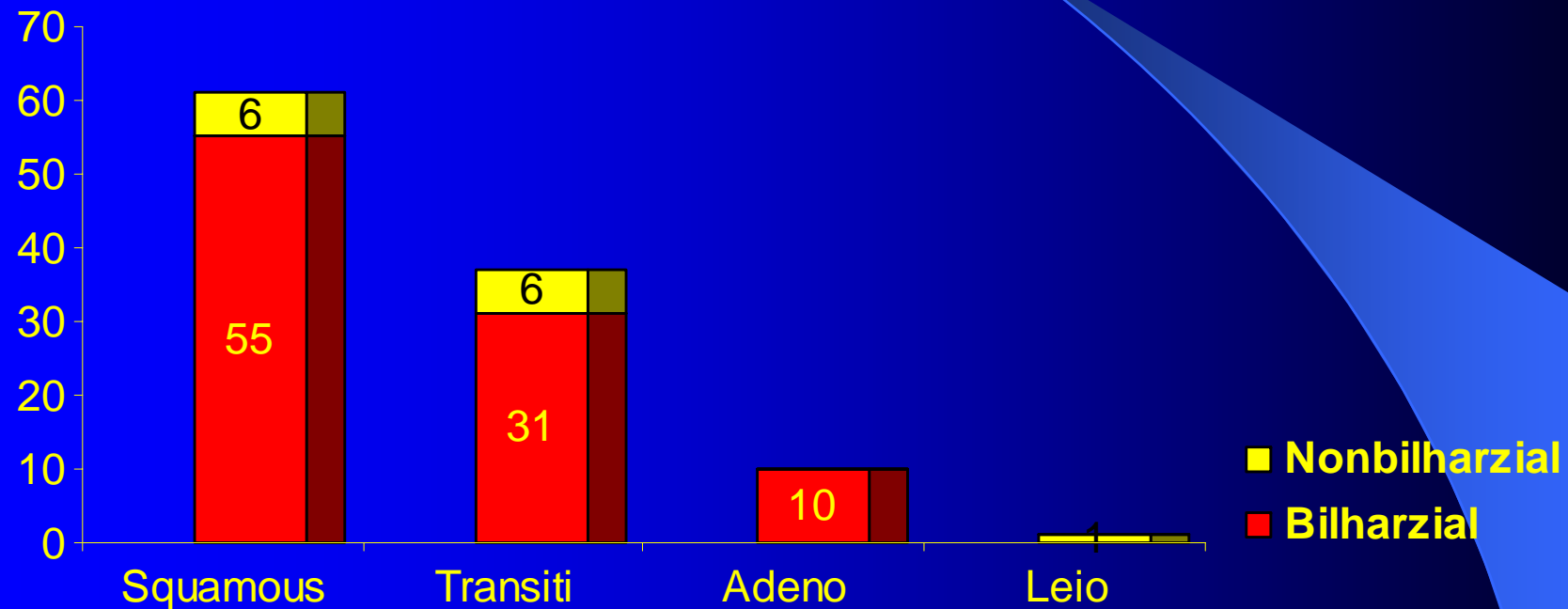


S/T ratio:1.6

● El-Bolkainy S/T : 1.5

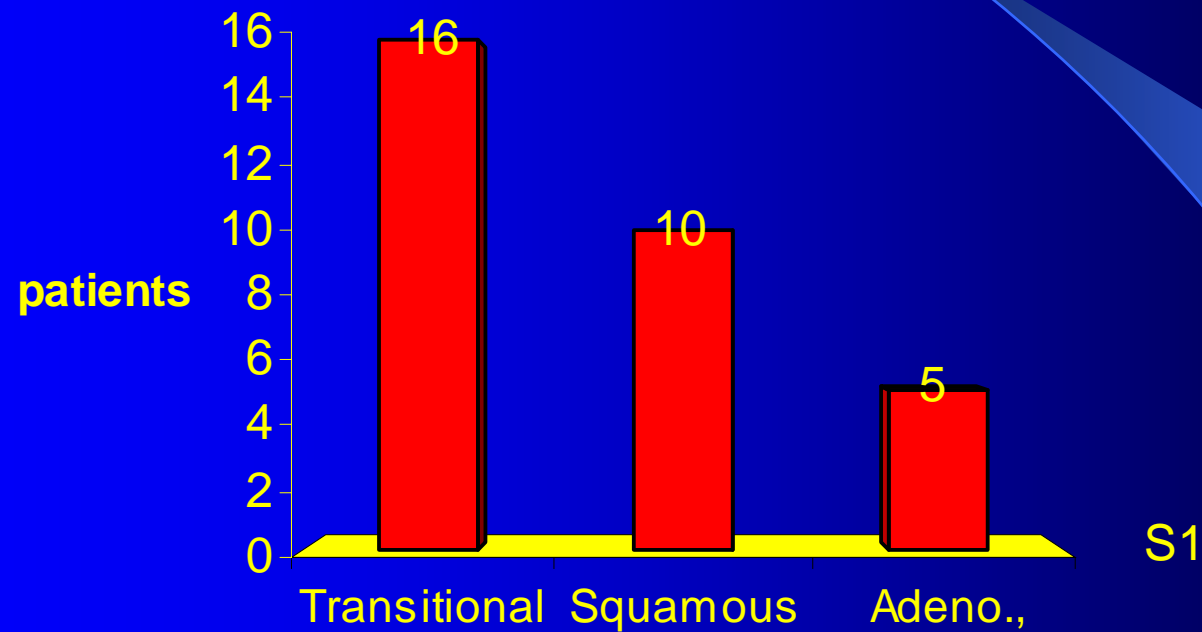
# Results

Histopathological typing Among Bilharzial and Non Bilharzial Bladder Cancer Cases.



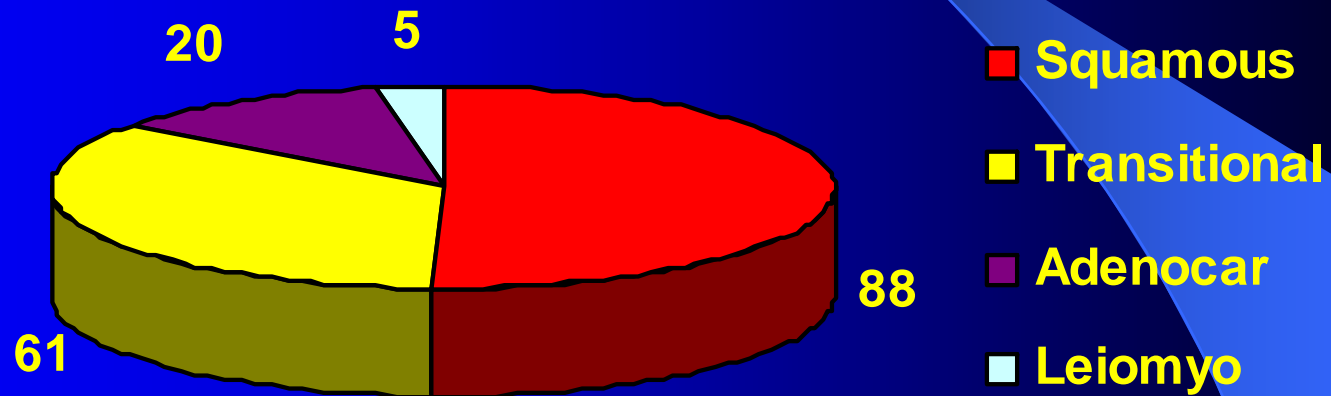
# Results

Distribution of Node positive Cases According to Histopathological Types.



# Results

## Histopathological Types and Number of Harvested Left Obturator Nodes

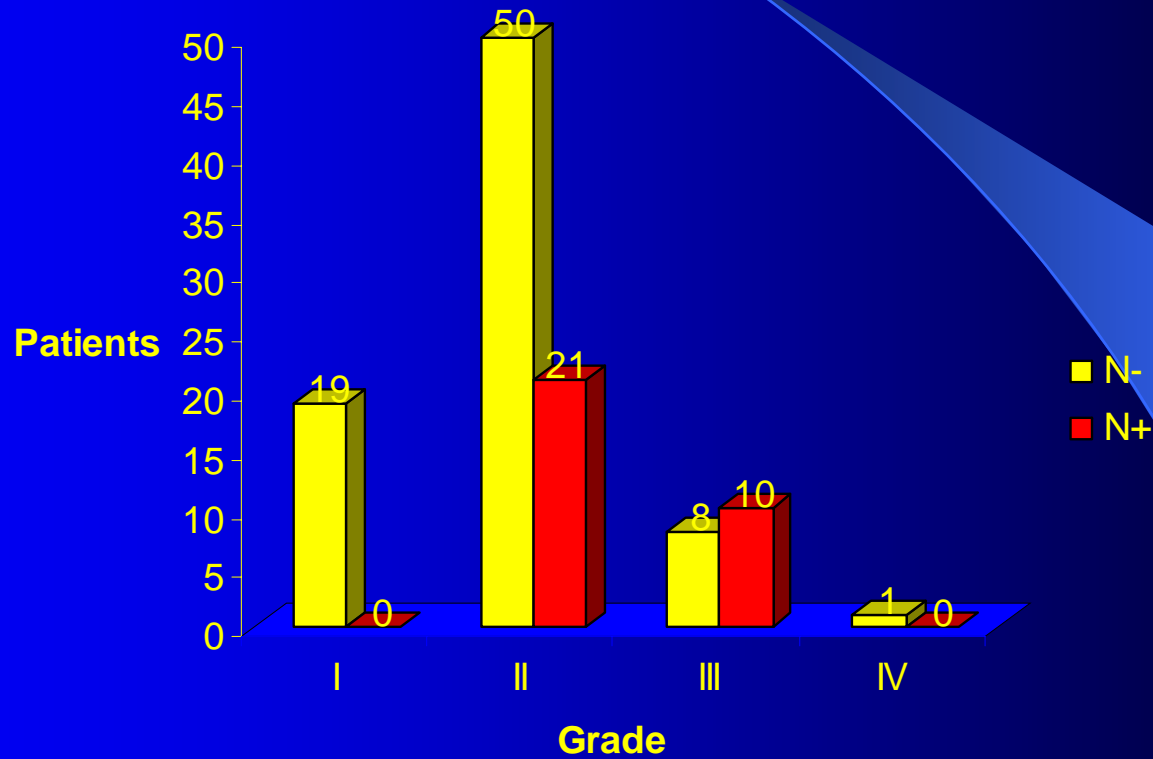


P-value 0.001

Highly significant

# Results

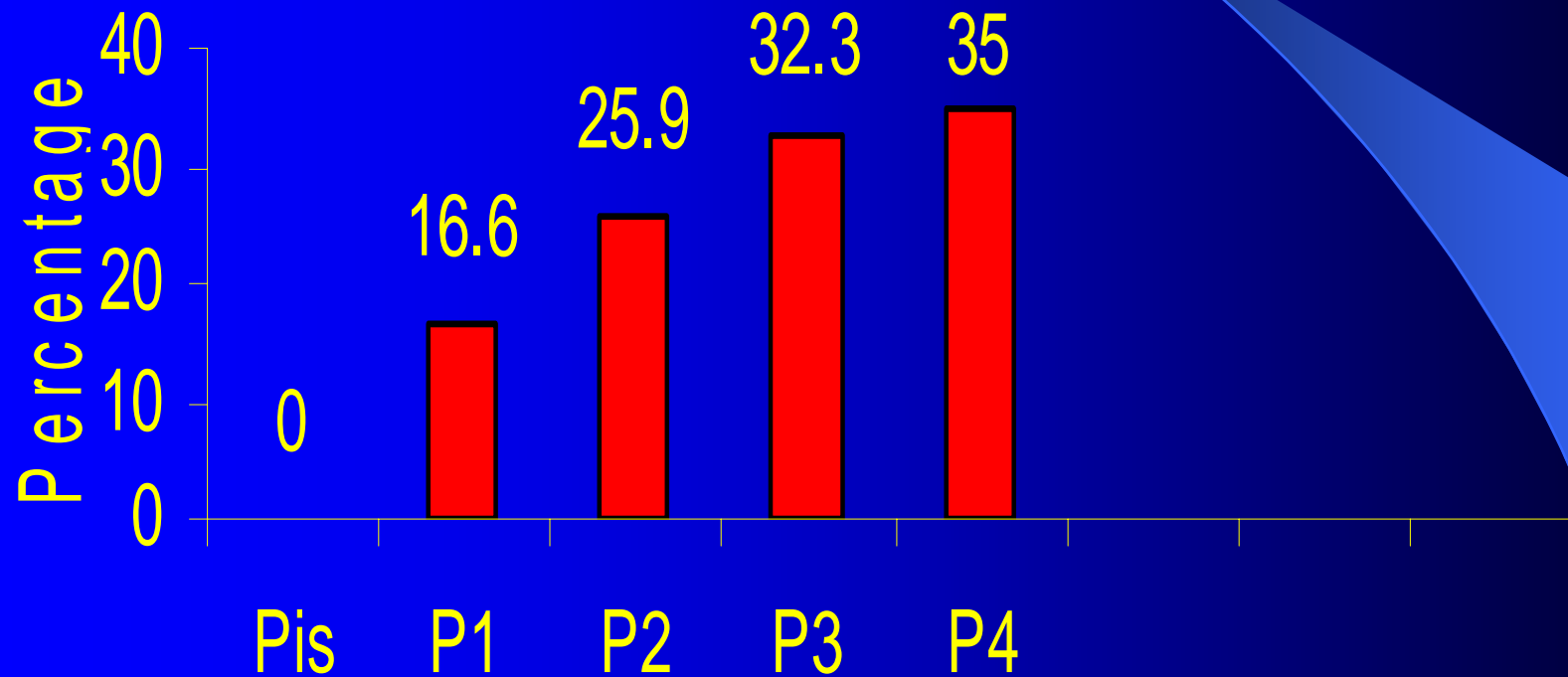
## Node Positive and Node Negative Patients & Tumour Grade



**P-value 0.001**  
**Highly Significant**

# Results

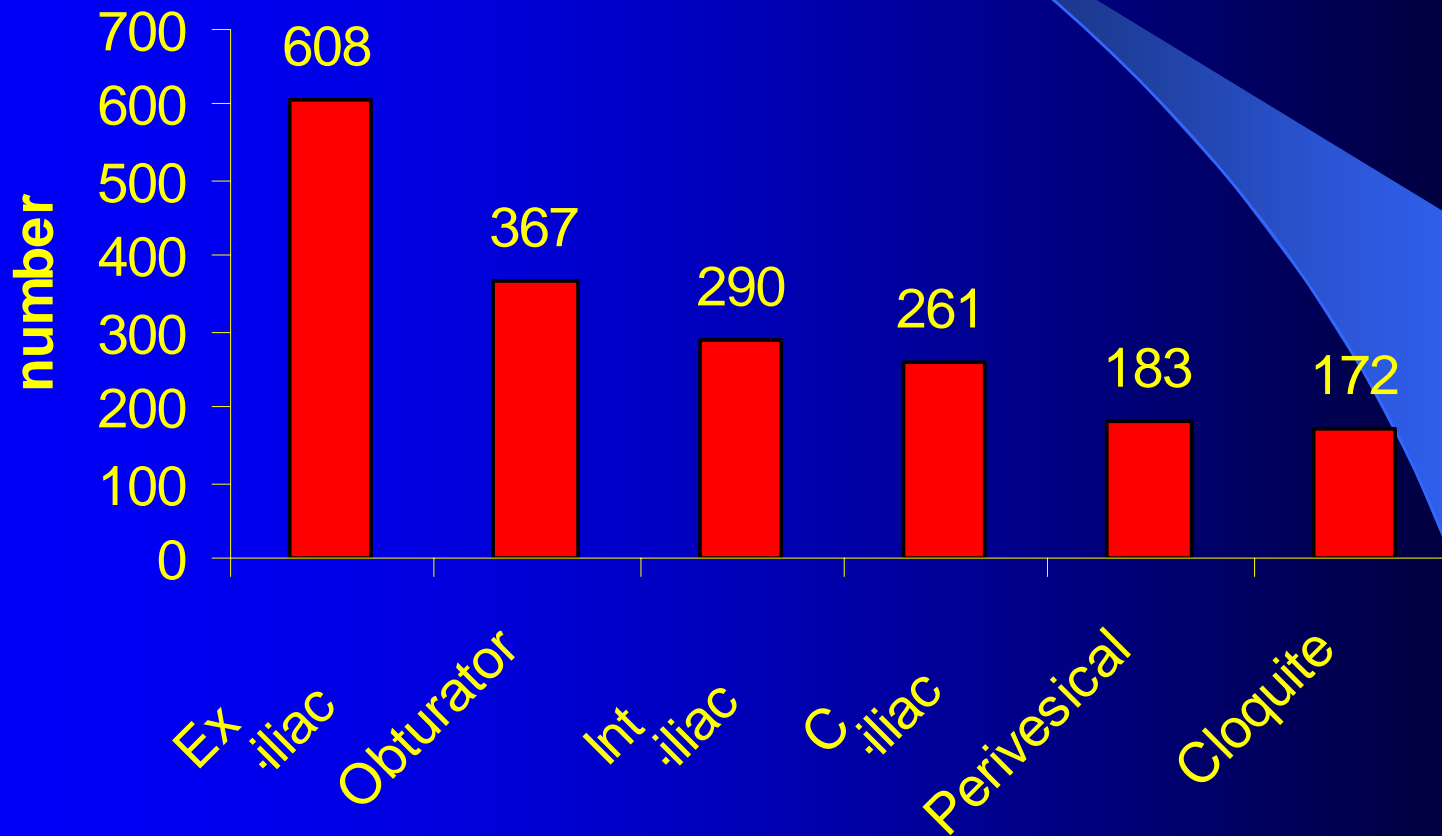
## Correlation Between Incidence of Nodal Involvement and Pathological Staging



Increase in tumour depth & Increase in probability of nodal involvement

# Results

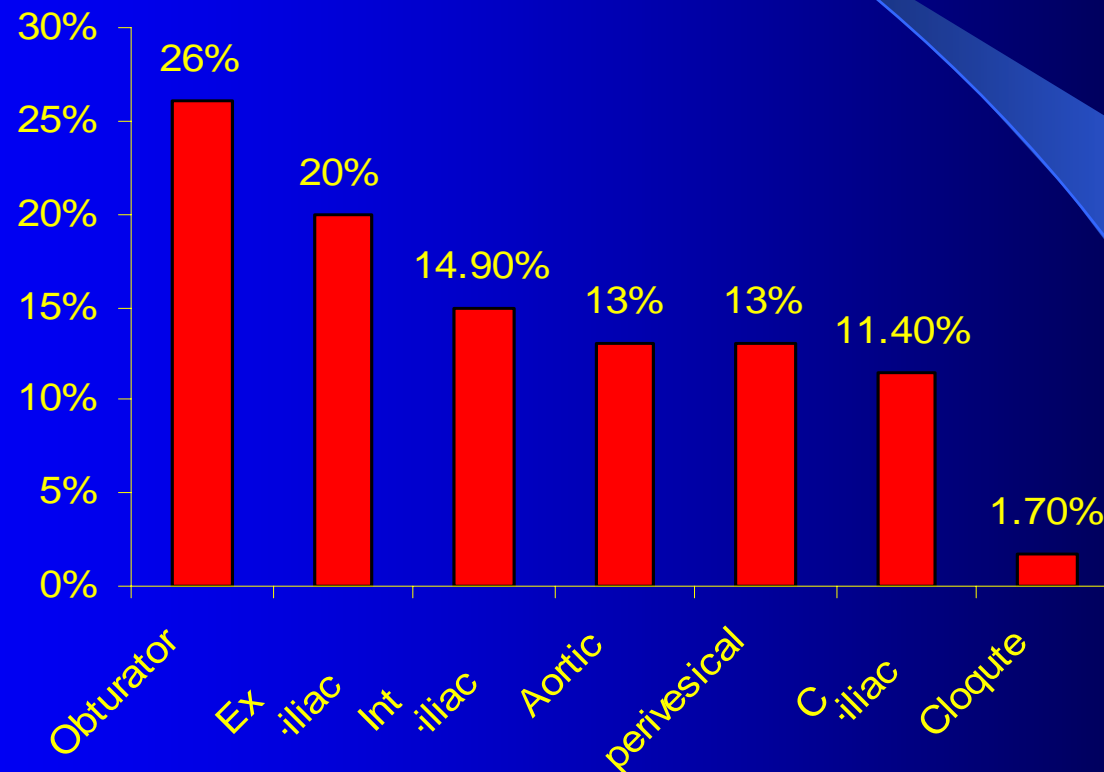
Number of Harvested Nodes in the Different Groups



**Total 2084**

# Results

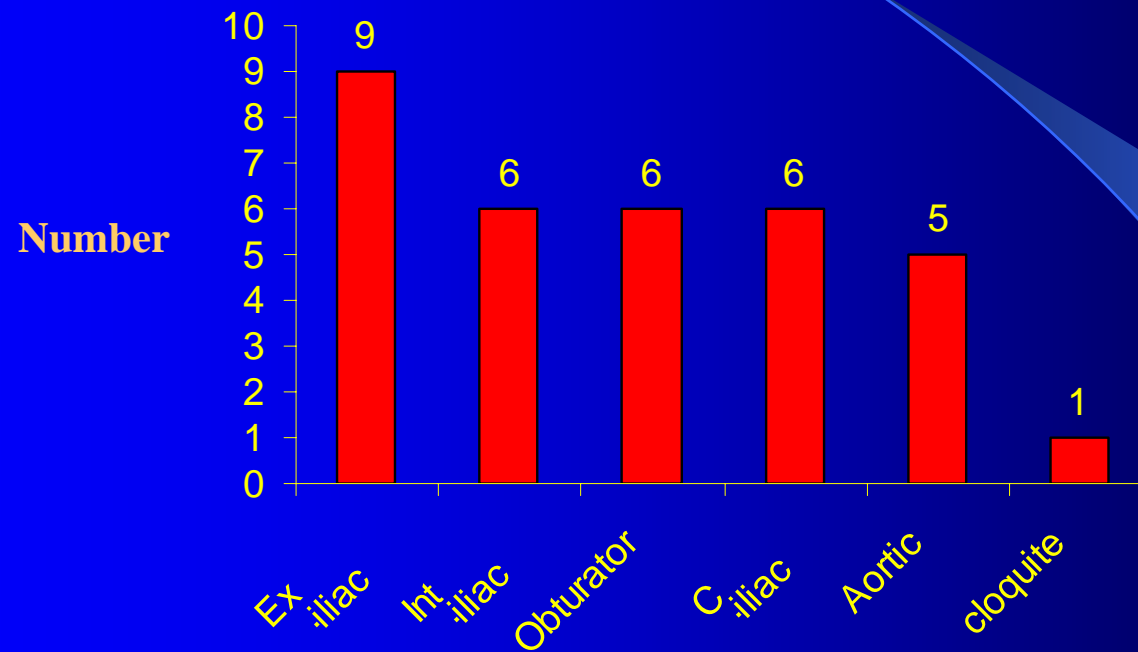
## Incidence of Nodal Metastasis in Different Groups



We correlate very well with the universally accepted

# Results

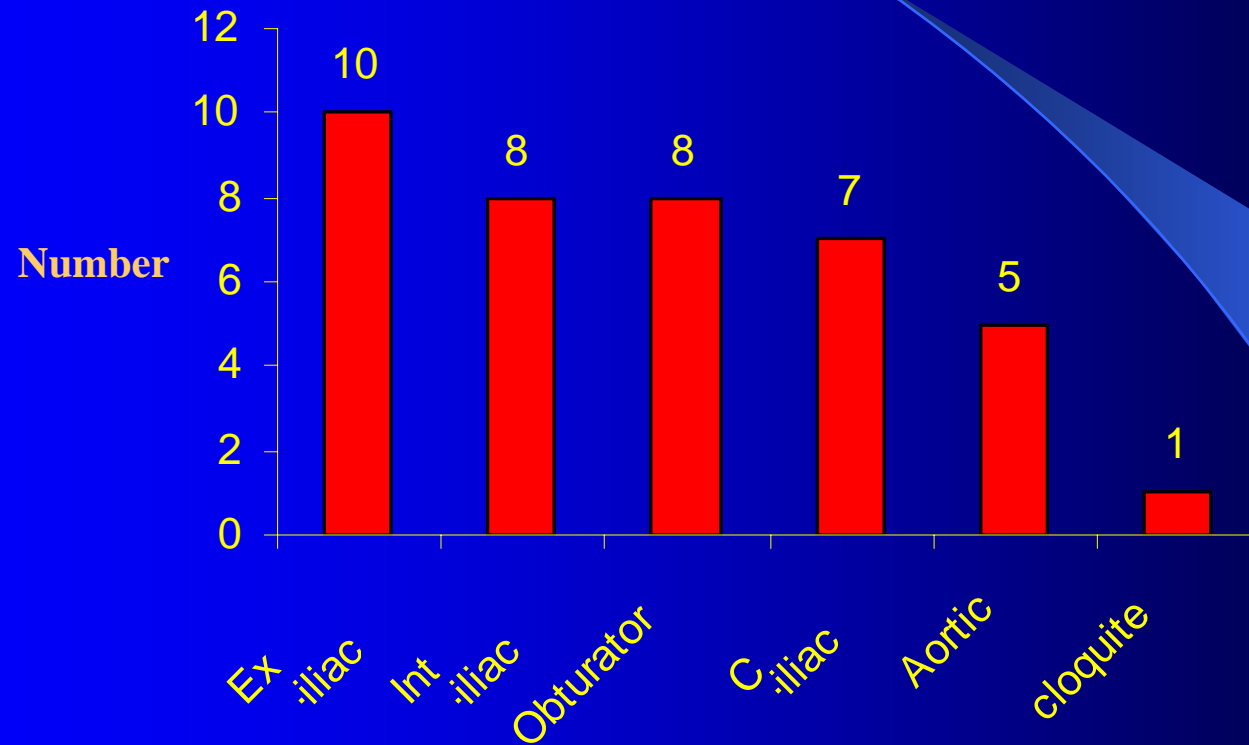
## Lymph Node groups left side



Pervesical:10 (Total)

# Results

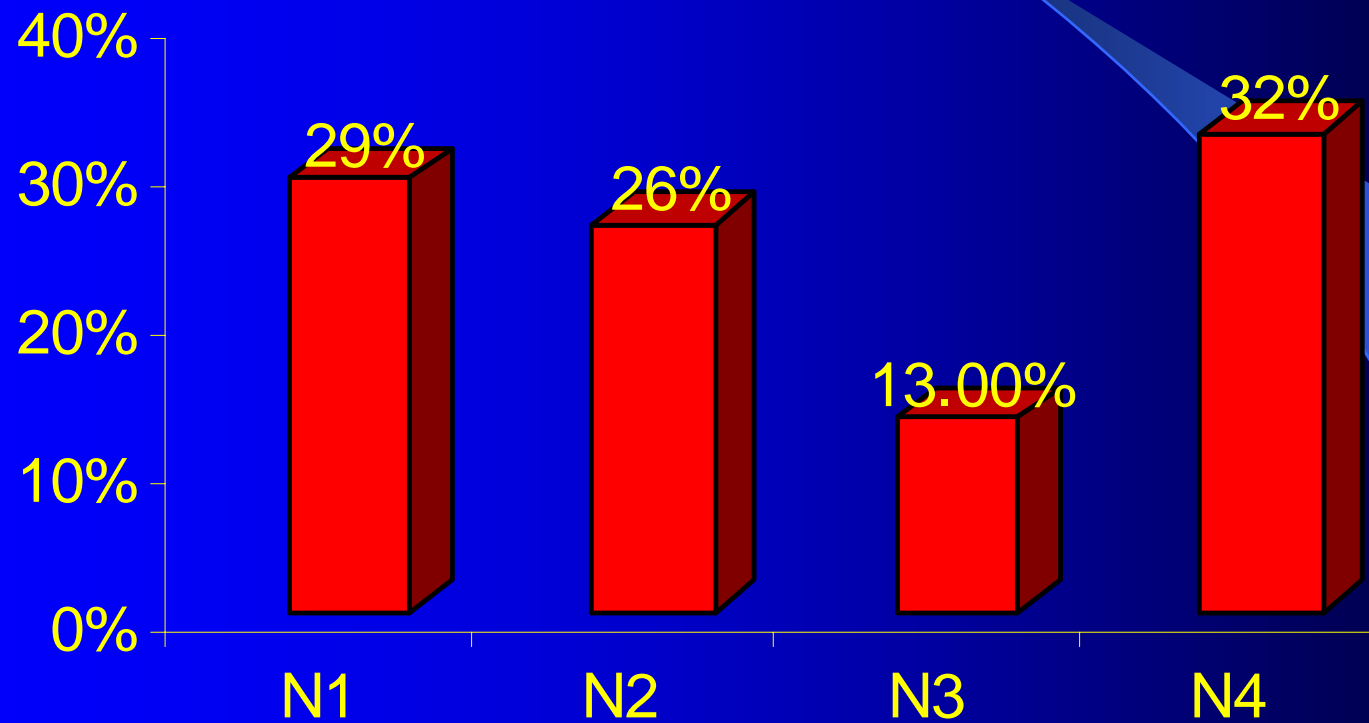
## Lymph Node Groups Right Side



Pervesical:10 (Total)

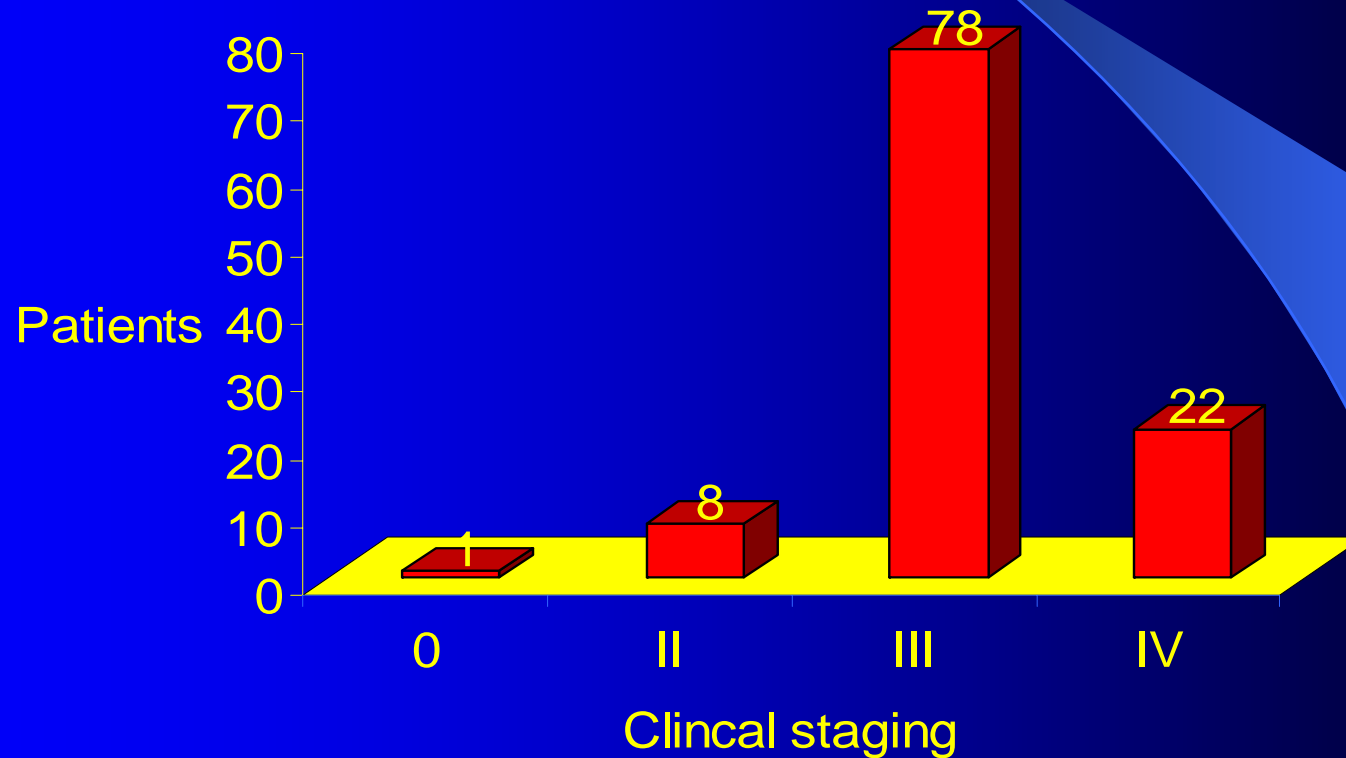
# Results

Distribution of Node Positive Patients According to Node Position to the Common Iliac



# Results

## Clinical Staging Among 109 Bladder Cancer Patients



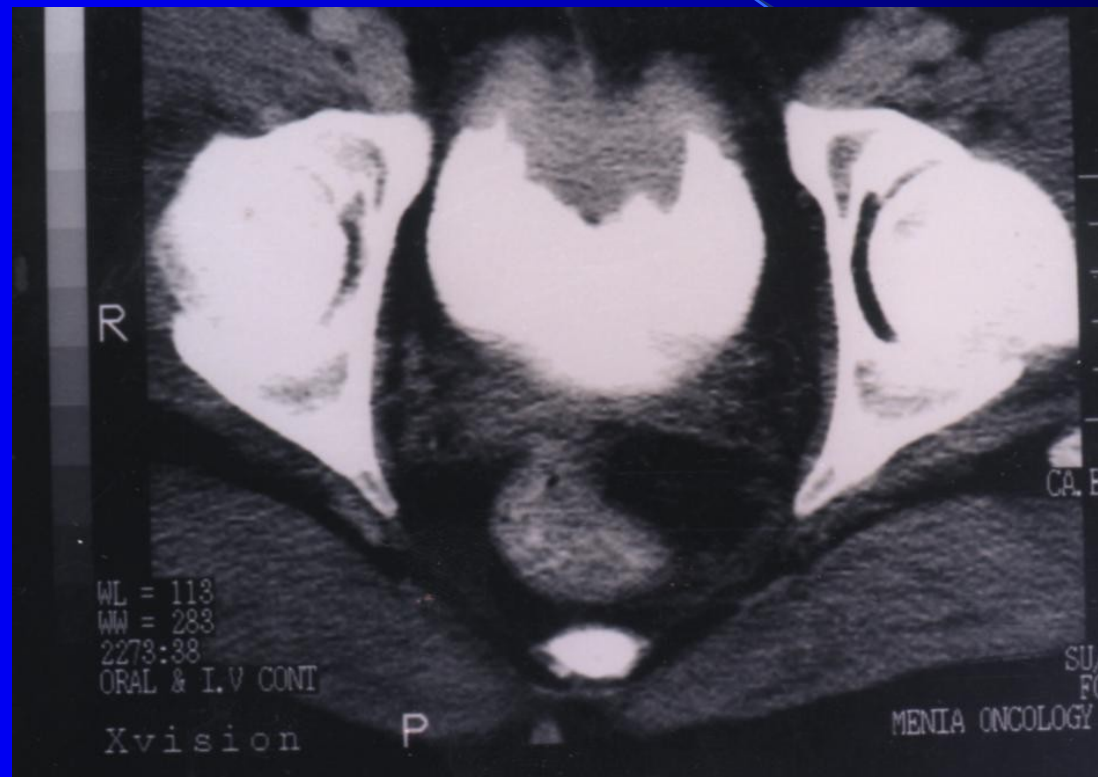
We correlate very well with the NCI figures

# Results

- **Clinical staging: overall error (70.6%), over staging (60.5%), under staging (10.09%) , and correct (29.35%)**
- **CT staging :overall error (70.6%) , (52%) over staging, under staging (48%) ,and correct (29.3%)**

# Results

## Tumour Invading Perivesical Tissues



# Results

## Tumour Invading Seminal Vesicles



# Results

- **Blood loss**
- **The minimum time was 3 minutes and the maximum was 10 minutes with a mean of 5.7 minutes**



# DISCUSSION

# Discussion

## • *Three unique things*

1. **Higher incidence of nodal metastasis(28.4%)**
  2. **Statistically significant correlation between tumour size and nodal metastasis**
  3. **The increasing number of the transitional cell and adenocarcinoma cases.**
- \* Squamous / Transitional :1.6**

# Discussion

- **Relative frequency of nodal involvement in different groups**
- **Tumour grade, pathological staging, tumour size & incidence of nodal metastasis**
- **Tumor site, tumor gross appearance, histological type & nodal metastasis**

**We Correlate very well with all the available series**

# Discussion

- **Skip lesion**
- **Stratification of our patients according to increasing nodal involvement**



CONCLUSION

# Conclusion

- **Our study suggests the assertion that extensive lymphadenectomy should be included when performing radical cystectomy for bladder cancer**

# Conclusion

## *The rationale*

- 1) **incidence of the common iliac and the par-aortic nodes**
- 2) **Adjuvant chemotherapy**
- 3) **Number of the nodes harvested**
- 4) **Morbidity**
- 5) **Recurrence-free survival rate**

# Conclusion

- **The higher incidence of nodal metastasis**
- **Nodal involvement is more common in the right side**
- **The increasing in the number of the transitional cell & adenocarcinoma**

# Conclusion

- **Our study provides an idea about: number, and size of pelvic lymph nodes**
- **CT and lymph node status**
- **Lymph node metastasis positively correlates with tumor grade, with the depth of tumor infiltration and with tumor size but not with tumor type**

## Conclusion

- **The results we had in our study strongly recommend evaluation of the therapeutic value of extending lymphadenectomy by doing survival analysis**
- **We found in our study, that extending the level of lymph node dissection to the aortic bifurcation is a viable and useful procedure.**

An aerial photograph of a large, deep blue lake. In the foreground, three sailboats with white sails are visible on the water. The middle ground shows a dense forest of green trees. In the background, a city is nestled in a valley, with rolling hills and mountains under a clear blue sky. The text "THANK YOU" is overlaid in a large, 3D, teal font, slanted across the middle of the image.

**THANK YOU**

VIDEO SHOTS