

# #634 Intra-operative radiation for pancreatic cancer: Initial experience at the Hadassah Medical Center

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## Introduction

- The prognosis following surgery for pancreatic cancer remains poor, local recurrence is common and negatively impacts the survival rate.
- To improve local control and potentially improve survival, we have adopted a strategy of adding intra-operative electron radiation therapy (IOeRT) to selected patients undergoing pancreatic resection for pancreatic cancer.
- Its main advantage is the ability to locally deliver a high radiation dose, therefore boosting the effect of pre-op stereotactic body radiation therapy (SBRT).
- Here we report our initial experience with this treatment modality.

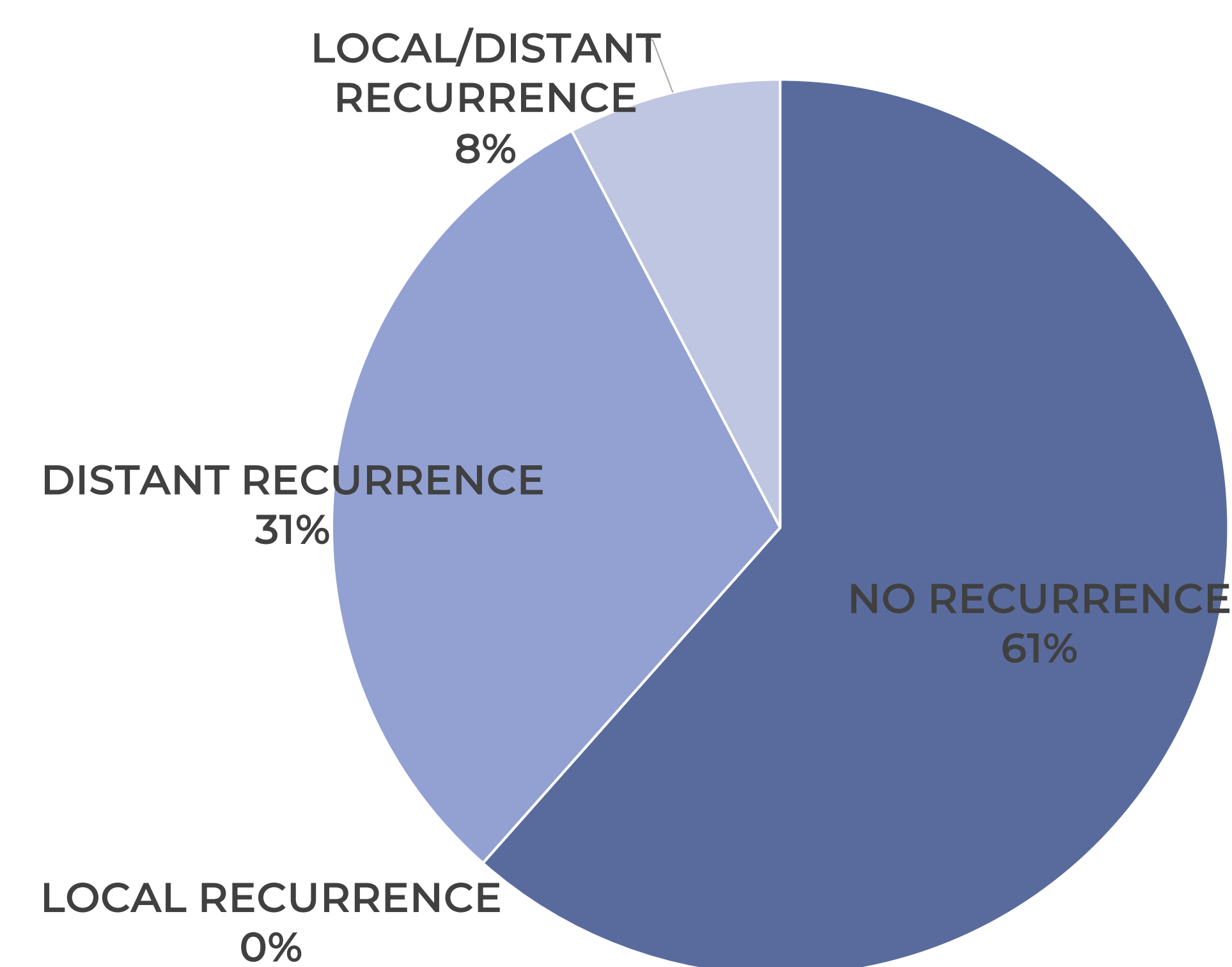
## Methodology

- This is a retrospective review of patients who were at risk of not achieving satisfactory resection margins by surgery alone.
- They were treated with pre-operative SBRT and neoadjuvant therapy.
- 2-4 weeks later patients underwent surgical intervention (whipple, distal pancreatectomy).
- Immediately after resection IOeRT was delivered to a dose of 10-15 Gy at the tumor bed deemed at high risk for recurrence.

# Combining neoadjuvant radiotherapy with SBRT followed by IOeRT boost at surgery appears feasible and safe.

This strategy **demonstrated high local control and low toxicity** following the resection of pancreatic cancer. However, longer follow-up and larger-scale studies are necessary.

## Results

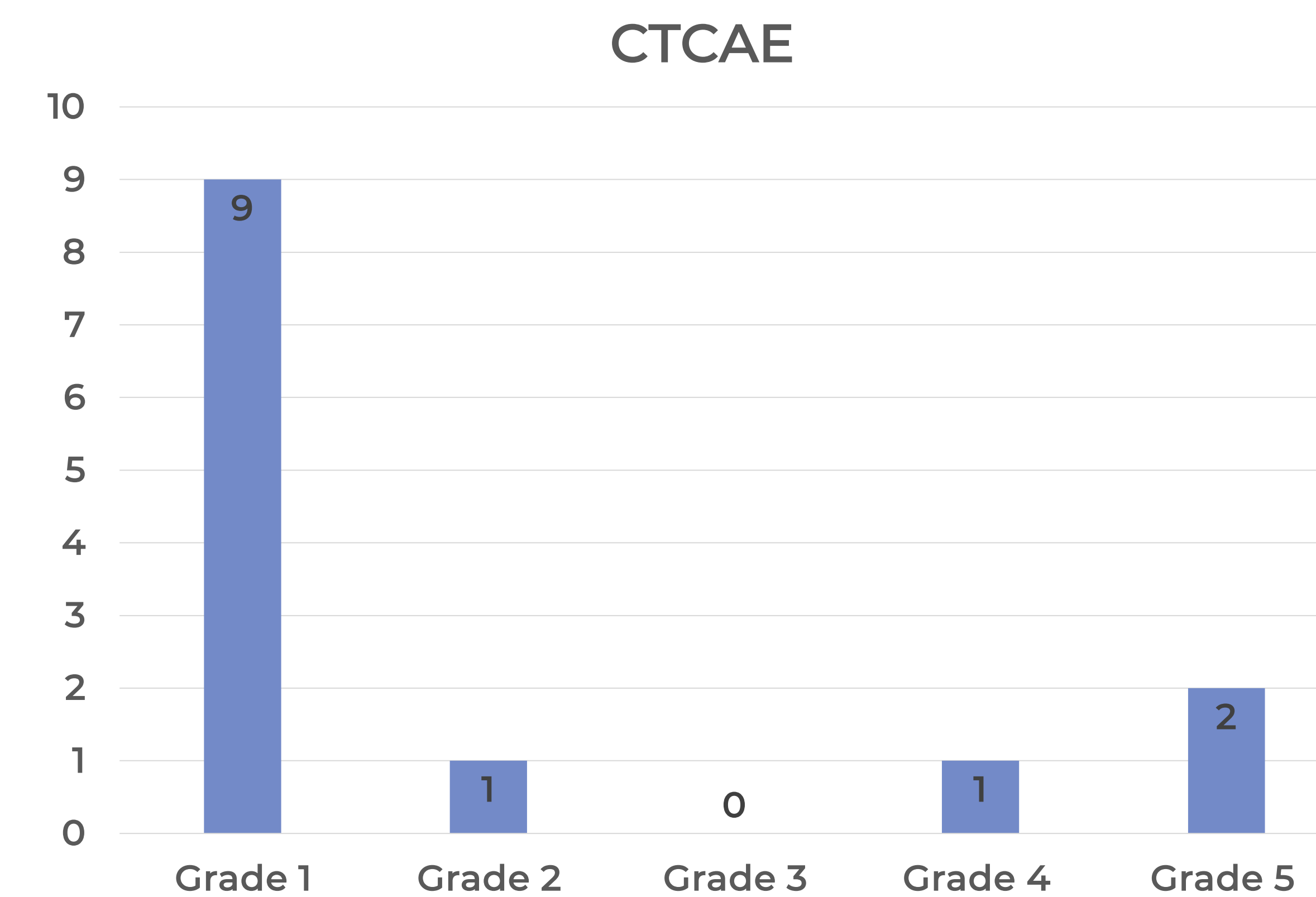


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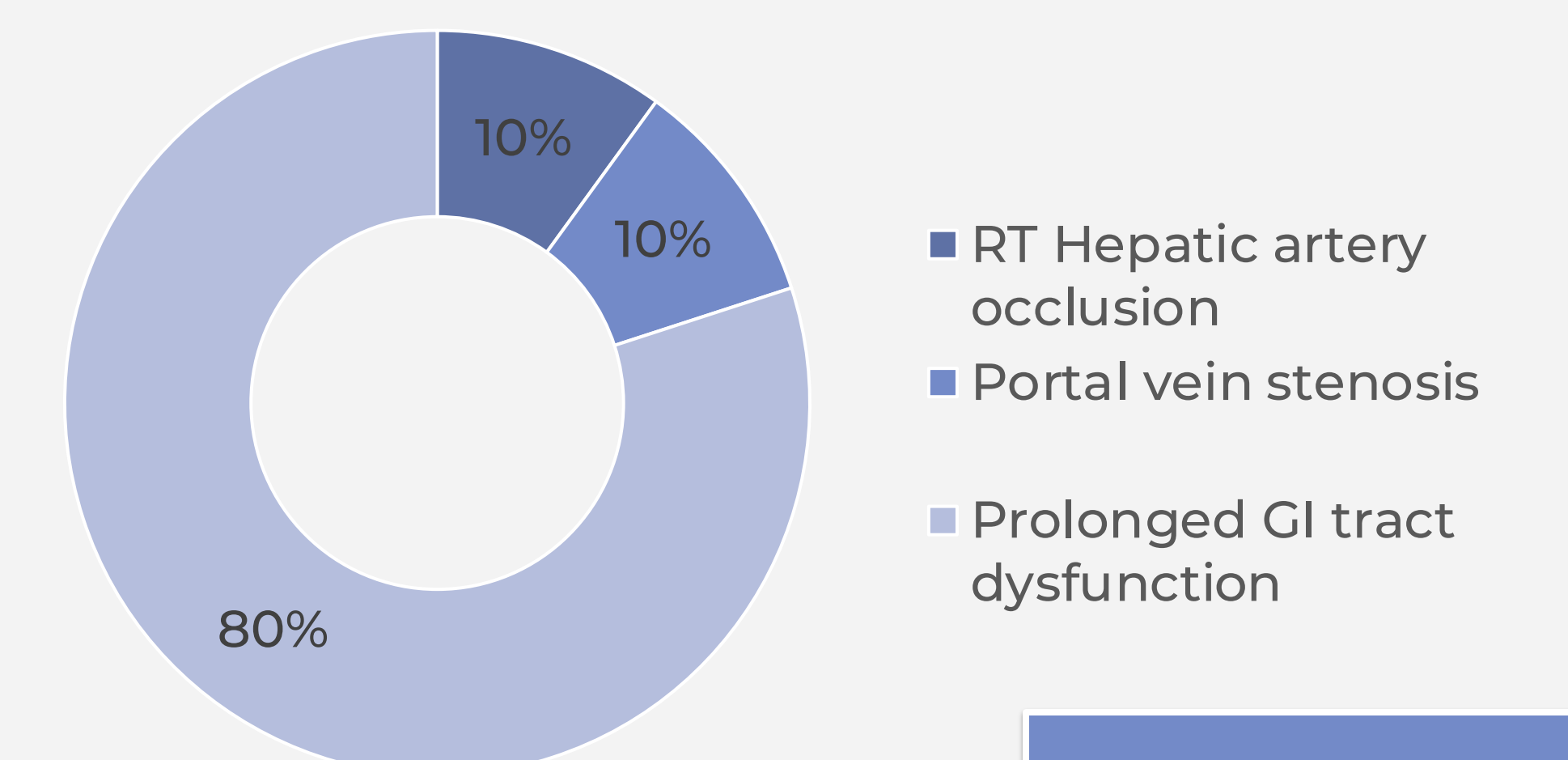
## Methodology

No.	TREATMENT		
	Pre-Op	Surgery – Pancreatic Resection	IOeRT
8 pts	Neoadjuvant chemotherapy + SBRT	5 Whipple, 3 distal pancreatectomy	YES
3 pts	SBRT	3 distal pancreatectomy	YES
2 pts	NO	1 whipple, 1 distal pancreatectomy	YES
1 pt	Neoadjuvant chemotherapy + SBRT	No surgery due to tumor progression	NO

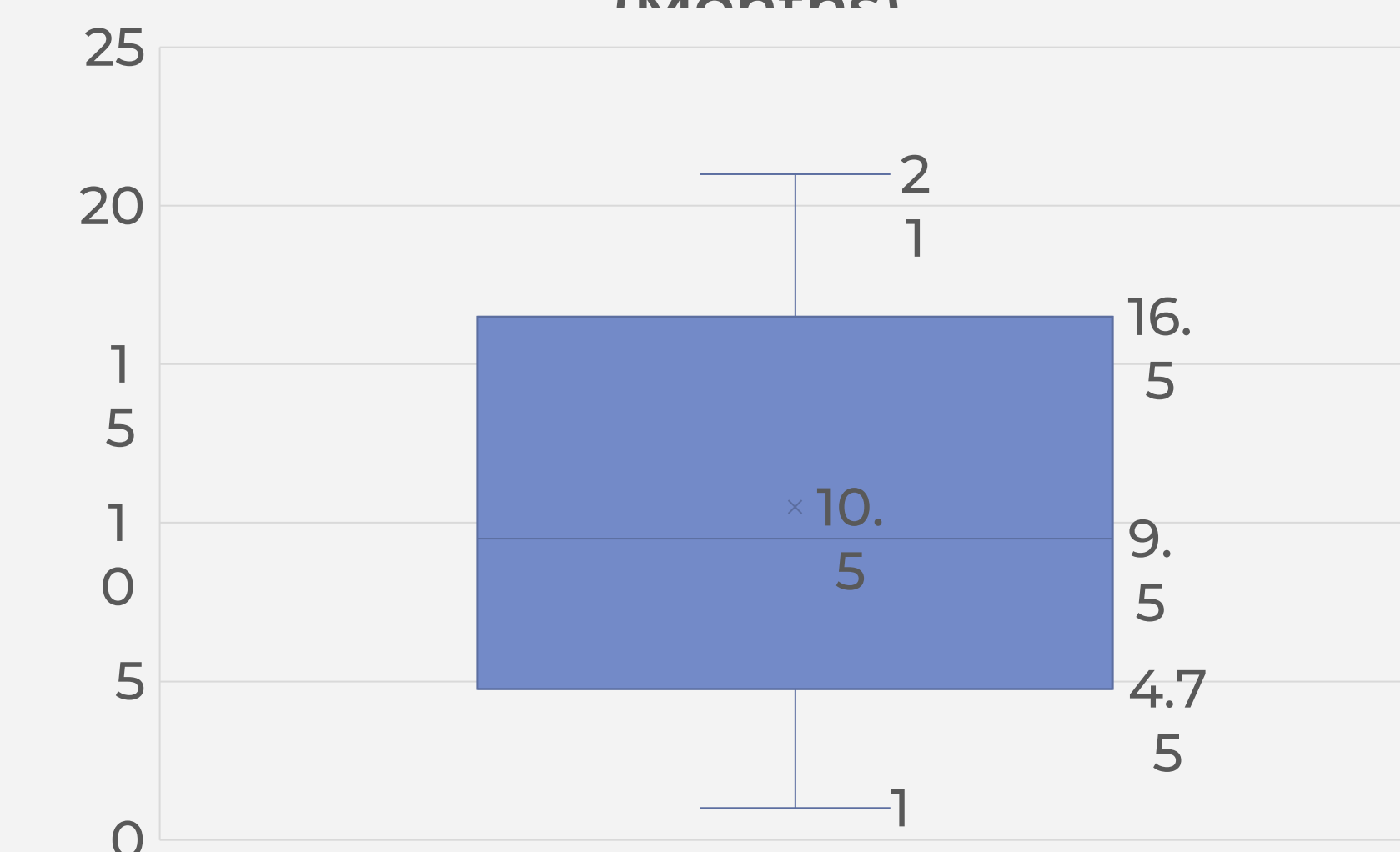
## Results

DEMOGRAPHICS		
Gender	Male	10
	Female	4
Age	Mean	66.17

### Long-term Post-Operative Complications



### Follow Up Time (Months)



### REMARKS:

- ✓ 2 pts carriers of BRCA gene mutation showed a complete pathological response.
- ✓ 1 pt died in due to early post-op complications (AOCRF+Pneumonia) - unlikely result from radiotherapy.
- ✓ 1 pt died from long-term post-op complications (hepatic artery occlusion, biloma, biliary sepsis) - likely result from radiotherapy.