



INTRA-OPERATIVE MONITORING FOR SPINAL TUMOUR SURGERIES



E-Poster Presentation

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INTRODUCTION

Intra-operative monitoring (IOM) is used as an adjunct to reduce post-operative morbidity secondary to spinal cord or nerve injury.

It is important to determine the requirement of IOM in various types of spinal tumours namely Extradural extramedullary (EDEM), Intradural extramedullary (IDEM) and Intradural intramedullary (IDIM).

METHODOLOGY

Population:

- All patients treated with spinal tumours from April 2015 - March 2019 at the Department of Neurosurgery, Sabah Brain & Spine Centre, Hospital Queen Elizabeth 2, Sabah, Malaysia.

Grouping:

- Patients were grouped according to the:
 - Tumour location
 - Usage of IOM
 - Associated post-surgical morbidity.

Due to our department's financial constraint; IOM is only used for IDIM tumours on patients' own cost.

DISCUSSION

All patients with IOM usage had better Glasgow Outcome Score (GOS) compared to patients operated without IOM for IDIM lesions.

IOM usage also showed improvement ASIA score at 6 months' post-surgery. This suggests that preservation of fibers of corticospinal tract is possible with IOM.

As for the IDEM and ED group of patients, all had good GOS without the usage of IOM.

CONCLUSION

An excellent knowledge of surgical anatomy and expert surgical skills are adequate for good outcome among EDEM and IDEM tumour patients.

IOM is not essential for all types of spinal tumour surgeries and should be highly selective for IDIM tumours if financial burden is an issue.

OBJECTIVE

The post surgical morbidity among patients operated with or without IOM needs to be analyzed.

The final aim of this study however was to:

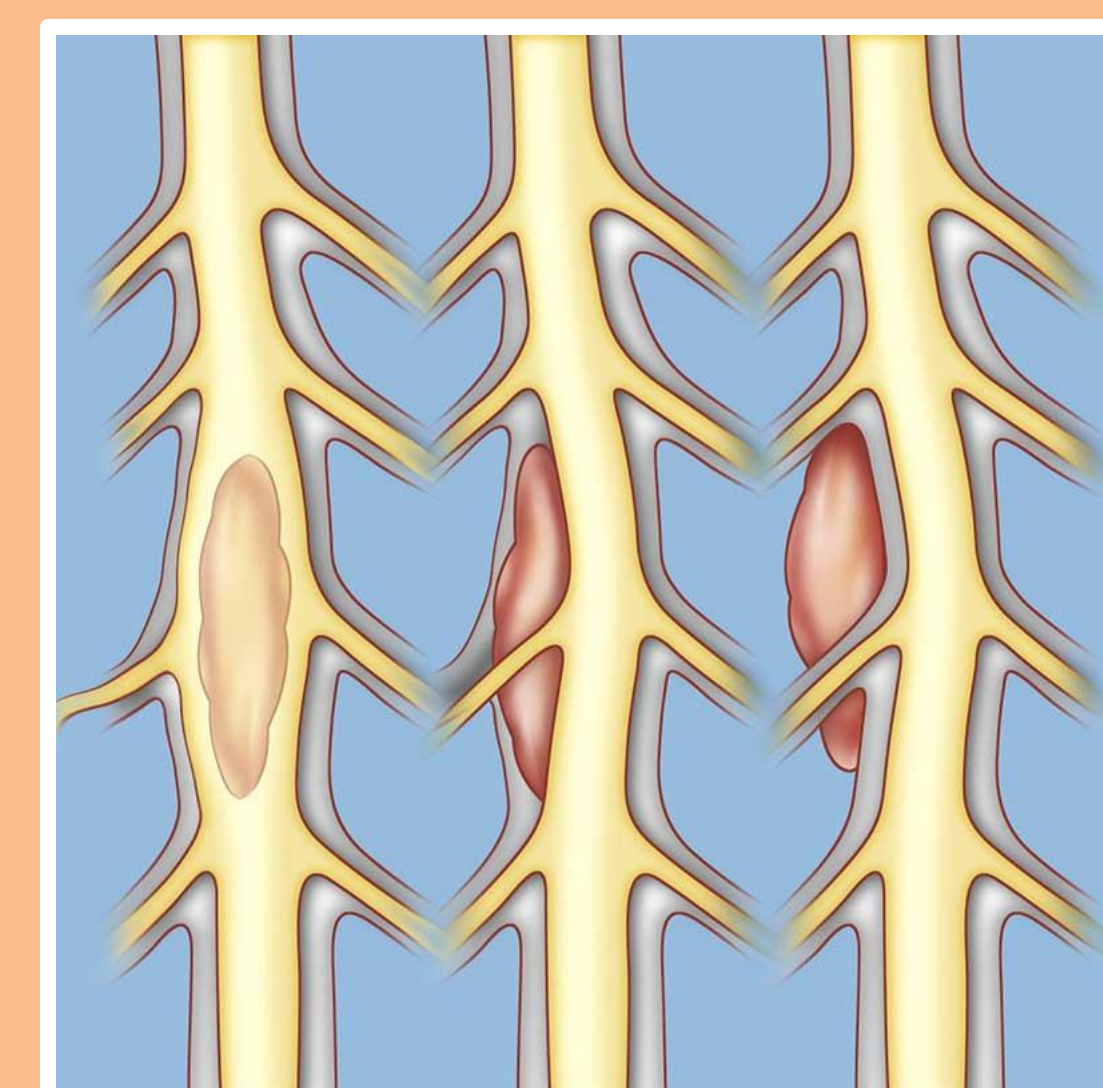
- Analyze if IOM can be proven to be not essential for all types of surgeries.
- Determine if IOM usage can be minimized to reduce patient's financial burden as IOM is expensive.

RESULTS

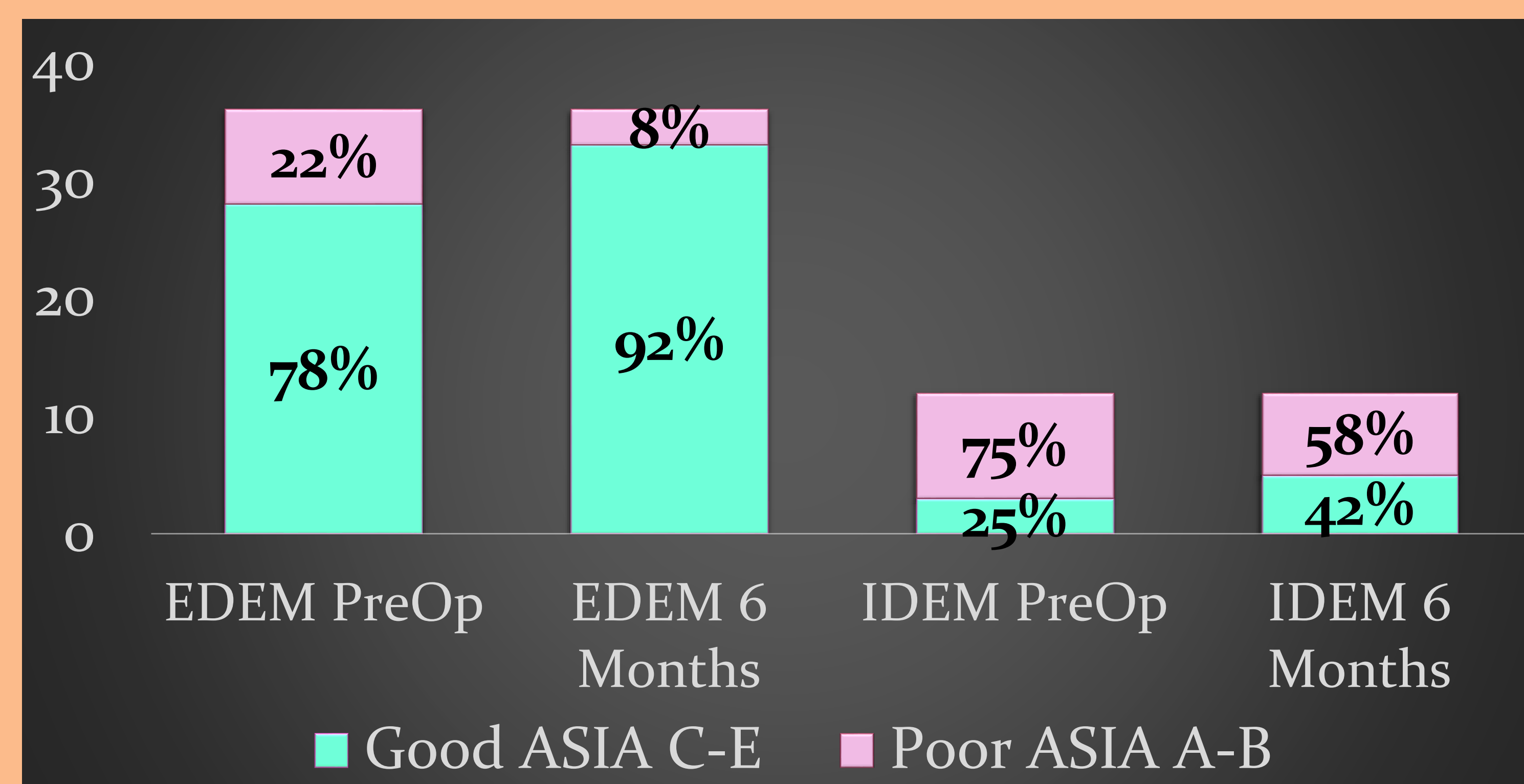
Total recruitment : 56 patients (34 males ; 22 females)

Tumour location & IOM usage:

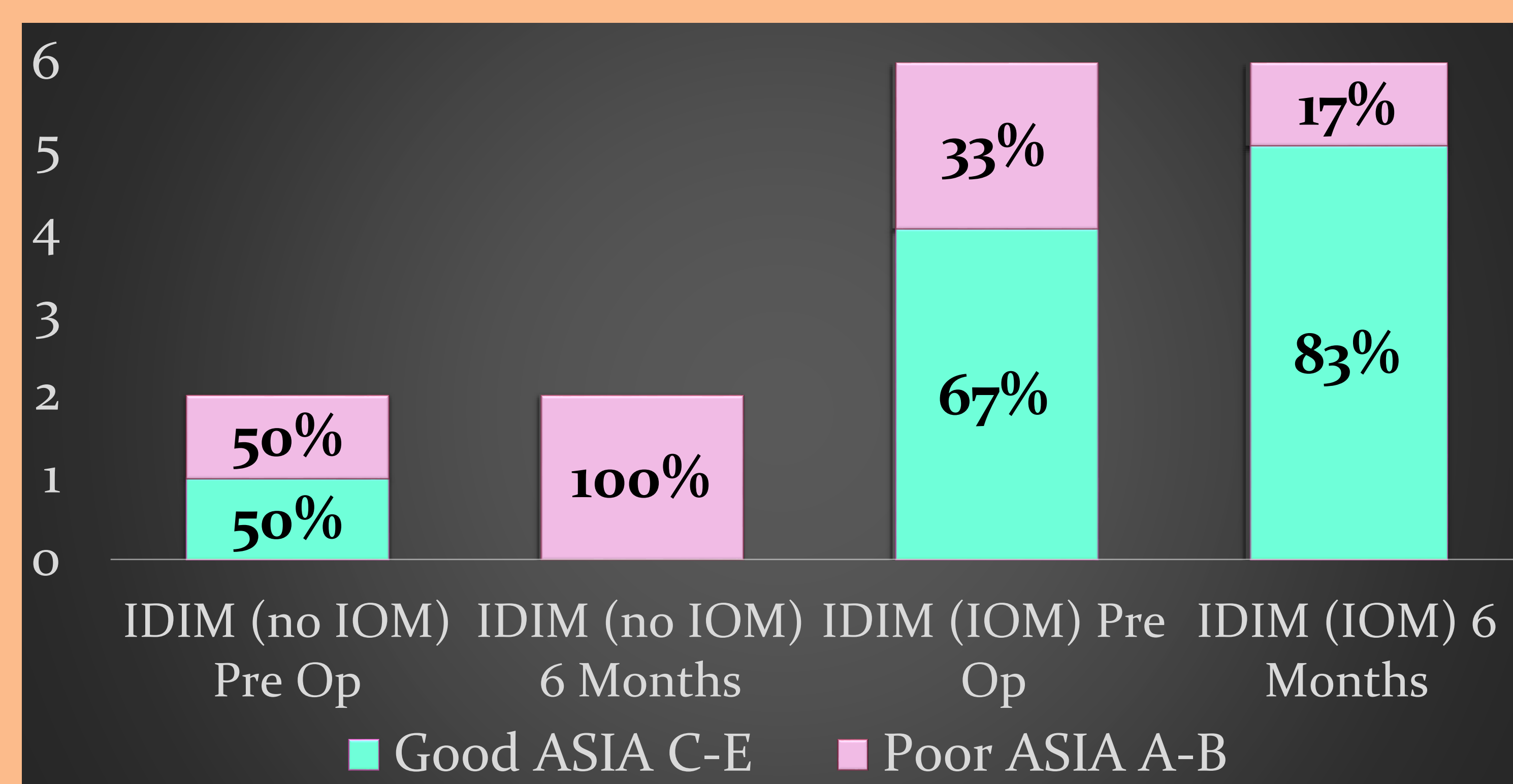
	No. of patients (n)	IOM usage (n)
EDEM	12	-
IDEM	36	-
IDIM	8	6



Outcome measured in ASIA Impairment Scale for all EDEM & IDEM tumours operated in our centre without IOM at pre op & 6 months post op period. Both groups of tumour show improvement.



Outcome measured in ASIA Impairment Scale for all IDIM tumours operated in our centre with or without IOM at pre op & 6 months post op period. Worsening of neurology is noted at post surgical period for this group.



CONFLICTS OF INTEREST: NIL

FINANCIAL SUPPORT : NIL