

# Treating Paediatric Morbid Obesity using the Multidisciplinary Intensive Inpatient Approach

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## Background

- A tertiary level, structured multidisciplinary outpatient approach may not always be sufficient in identifying morbid obesity causation
- In the absence of other effective treatment modalities, a hospital stay approach can be a suitable option in selected resistant cases<sup>1</sup>
- We share our experience at a multidisciplinary Tier 3 paediatric obesity set up

## Materials and methods

Retrospective case record review of patients admitted for inpatient obesity management over a 12-month period from March 2018 to February 2019

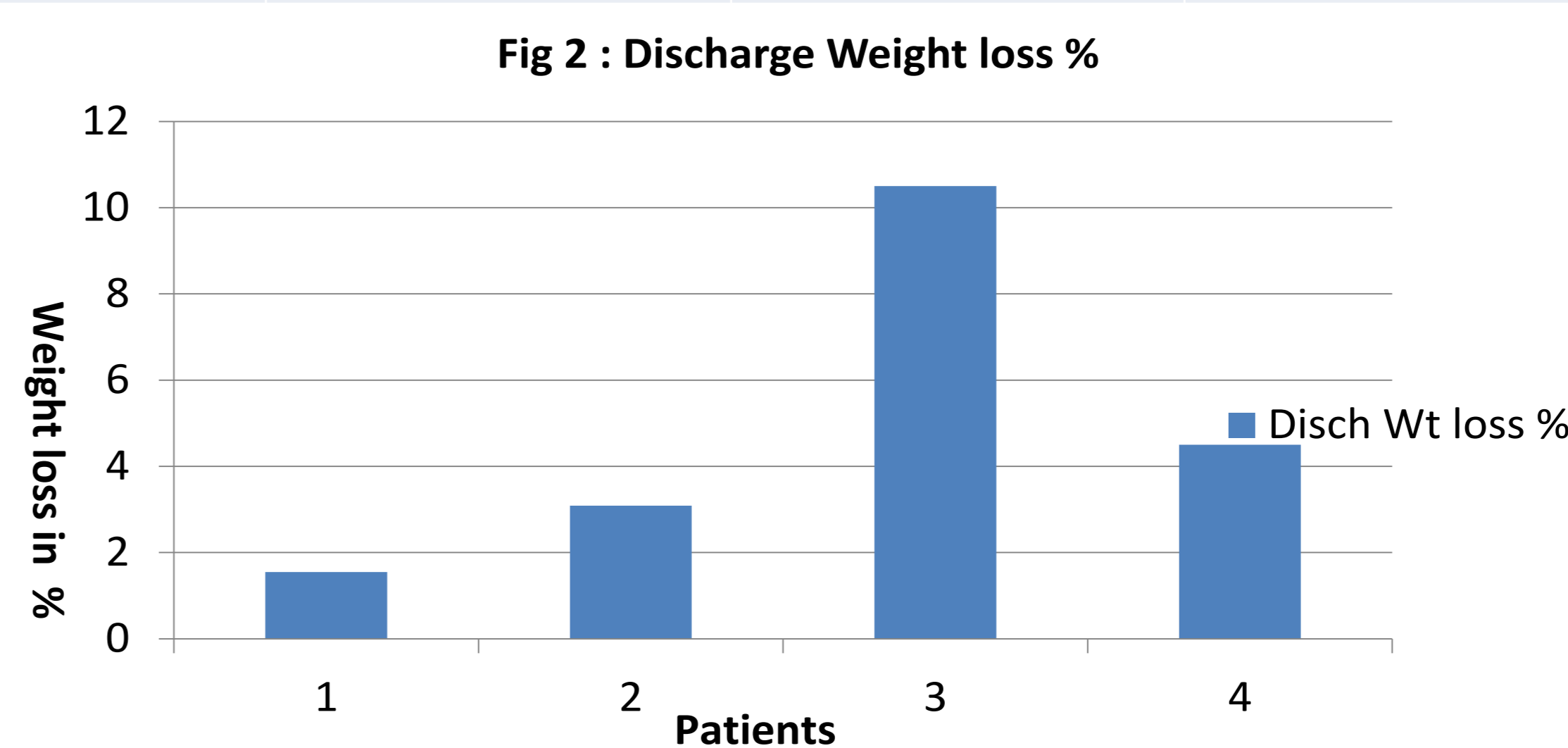
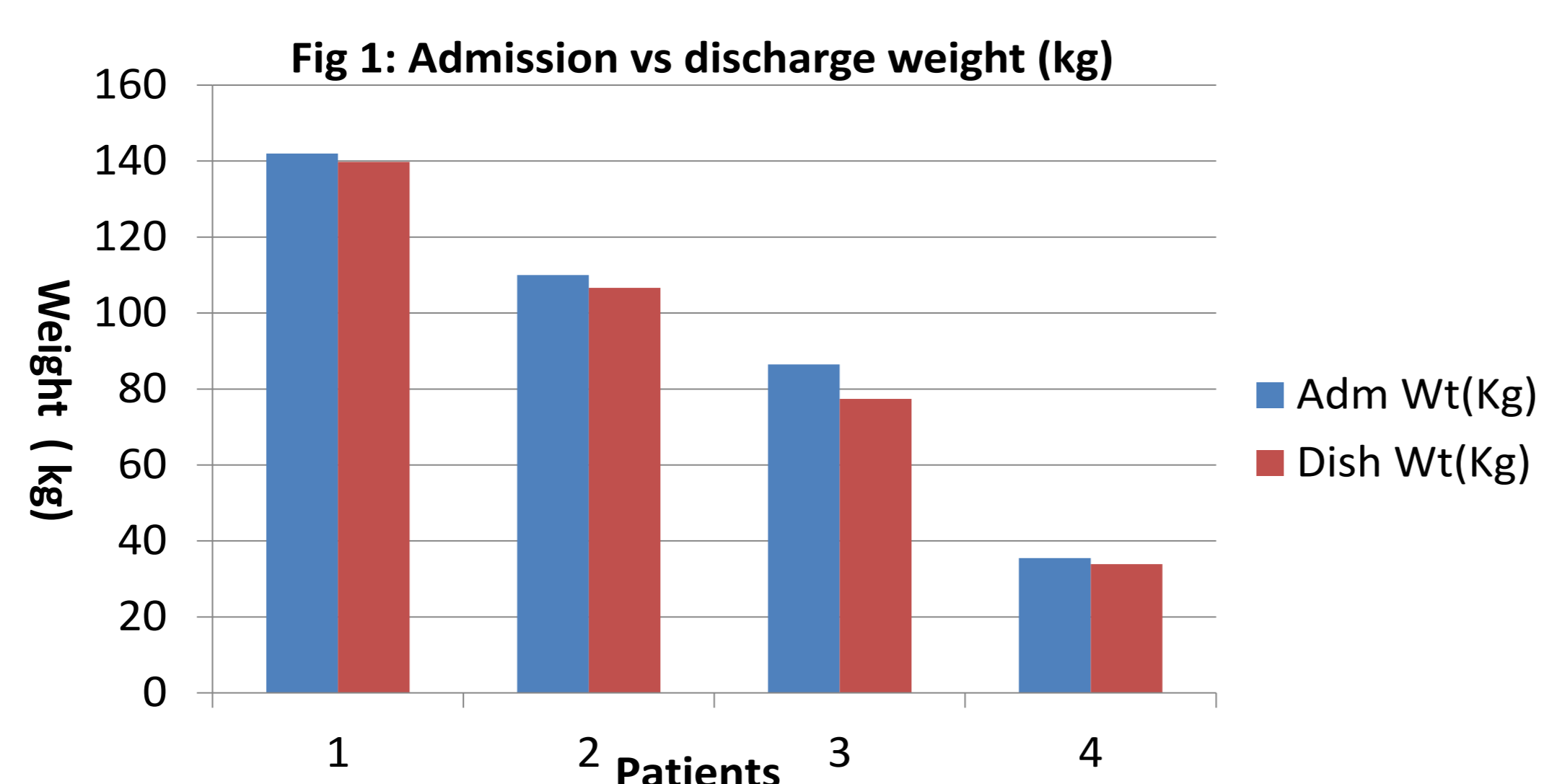
**Total no of inpatient cases studied = 4**  
(approximately 5% of patients seen in one year)  
Average BMI SDS on admission = 4.1  
Mean age = 9.25 yrs (4-13 yrs)  
Mean length of hospital stay = 10.5 days

- During their stay, all patients received an individualised multi-modality support, involving inputs from paediatric endocrinologist, obesity nurse specialist, paediatric dietitian, social worker and clinical psychologist
- Eating patterns, sleep, behavioural and psychosocial issues were considered
- They were given a guided menu choice exclusively from the hospital menu
- Regular supervised exercise in the form of hospital walks was encouraged and access to electronic medium was kept to a minimum
- Family re-education about obesity and lifestyle modification were reinforced

**Subsequent clinical visits**  
Clinical review, BMI SDS

**Table 1: Inpatient stay- Weight, BMI SDS at admission, discharge and follow-up**

Pt	Sex	Age (yrs)	Stay (days)	Admission weight(kg)	Admission BMI SDS	Discharge Weight (Kg)	Discharge Weight loss %	Discharge BMI SDS	Follow up BMI SDS at 1 month
1	M	11	5	142	4.18	139.8	1.55	4.16	4.15
2	M	13	6	110	3.71	106.6	3.09	3.64	3.64
3	M	9	22	86.5	4.11	77.4	10.5	4.01	3.87
4	F	4	9	35.5	4.4	33.9	4.5	4.14	4.13



## Results

- Successful weight loss was documented at discharge in all 4 children (Fig 1)
- The average documented weight loss was 4.9% (1.55-10.5%) (Fig 2)
- Post discharge follow-up at 1 month, BMI SDS losses from admission were sustained in all children

## Conclusions

- Supervised intensive multidisciplinary inpatient setting may be required in select cases to demonstrate successful weight loss
- It offers a crucial contact period between the family and multidisciplinary team for re-education
- It may identify an at risk home environment which may warrant care in an alternative environment
- Long-term sustainability and feasibility of the inpatient approach will remain a challenge

## Reference

1. Knopfli BH, Radtke T, Lehmann M, Schatzle B, Eisenblatter J, Gachnang A, et al. Effects of a multidisciplinary inpatient intervention on body composition, aerobic fitness, and quality of life in severely obese girls and boys. J Adolesc Health. 2008;42:119-27