

**FACTORS PREDICTING MASSIVE BLOOD LOSS IN
PATIENTS UNDERGOING PELVIC RESECTION:
A TERTIARY REFERRAL CENTER EXPERIENCE FROM NORTH
INDIA**

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INTRODUCTION

- Pelvic resections are technically demanding procedures in view of the precarious anatomy with close proximity to various neuro-vascular structures and intra-pelvic organs. Hence majority of the pelvic resections are performed in tertiary referral centres where the surgical team has sufficient experience, expertise and multi-disciplinary support to handle the perioperative challenges.
- Anticipating complications is the key to prevent them from happening. Massive blood loss in pelvic tumours is a dreaded intraoperative complication which is potentially life threatening if not addressed in a timely and efficient manner.
- Risk factors for massive blood loss are under studied due to the rarity of such procedures.

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AIM

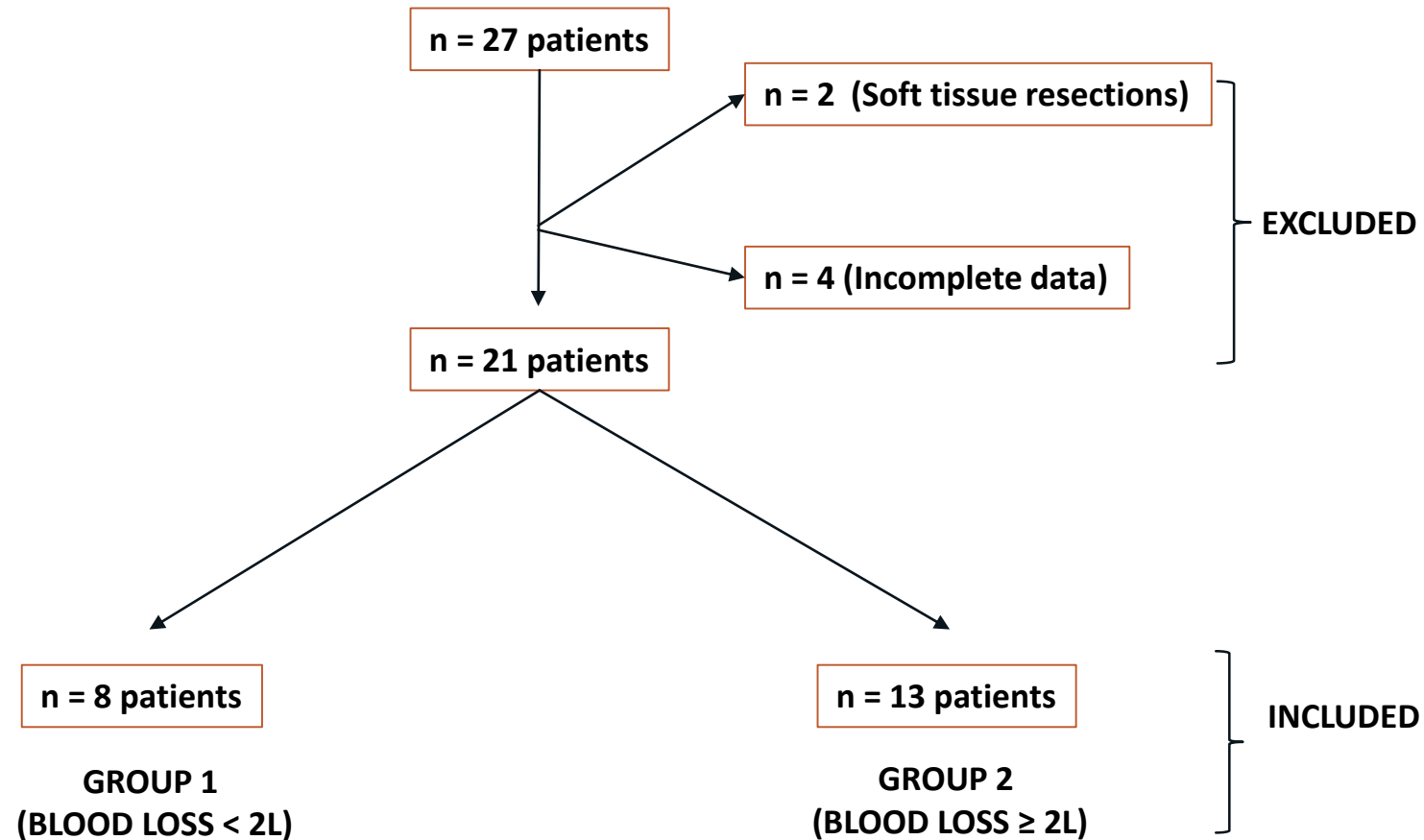
- The aim of our study was to evaluate the factors that may predict the chances of excessive blood loss in patients undergoing pelvic resection for sarcomas and assess perioperative morbidity in such patients.

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METHOD

- A cross sectional study
- Pelvic resections performed between January 2018 to October 2019 were included.
- Patients were divided into two groups- Group 1 with intraoperative blood loss less than 2 litres & Group 2 with blood loss 2 litres or more.
- Demographic data, tumour characteristics, surgical procedure and perioperative outcomes were studied between the two groups.
- Soft tissue only resections and patients with incomplete data were excluded.



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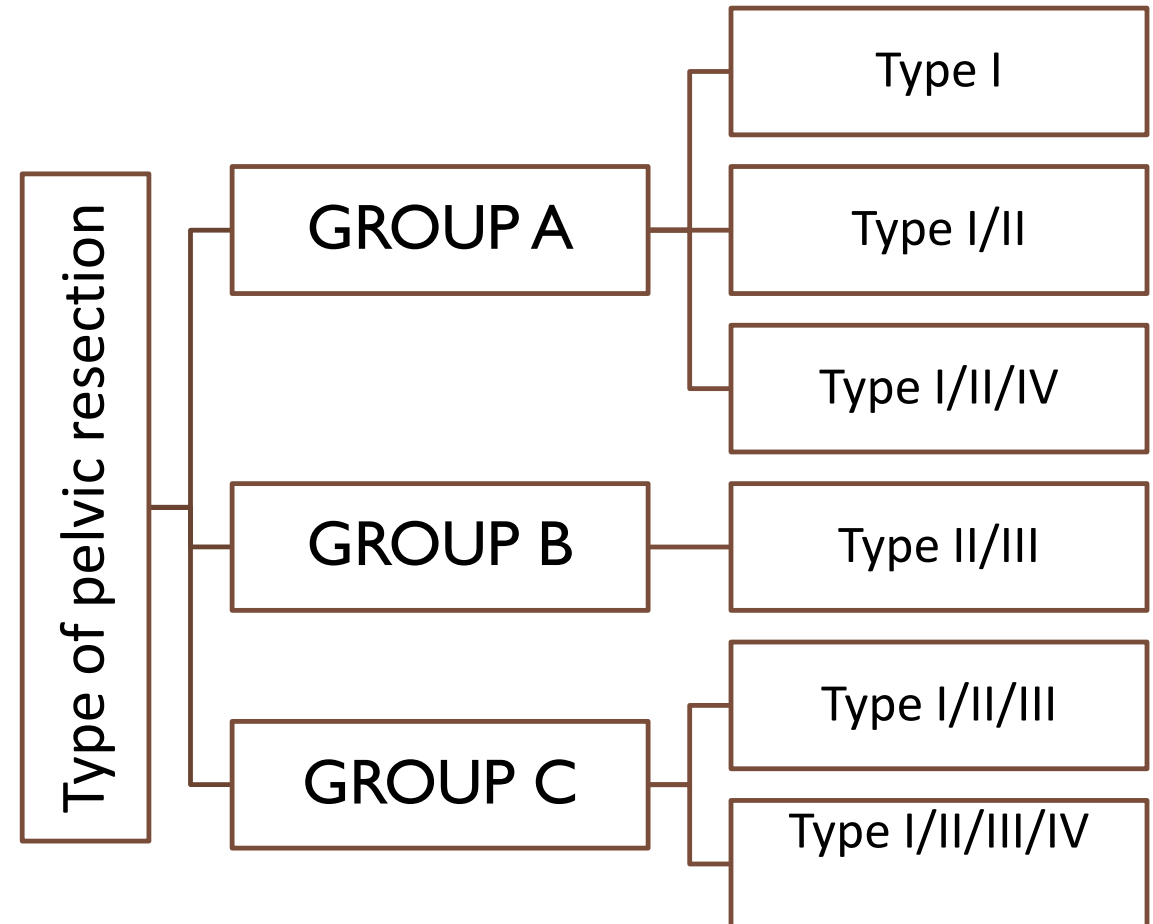
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PRE -OP FACTORS

- Tumour type
- Presence of metastasis
- Neo-adjuvant chemotherapy
- ASA grade
- Tumour volume
- Type of pelvic resection
- Duration of surgery

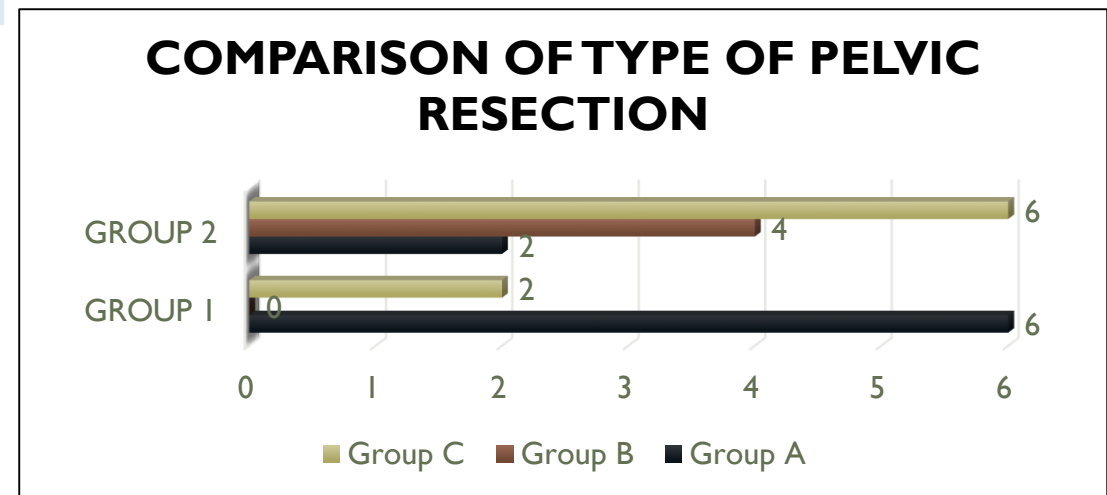
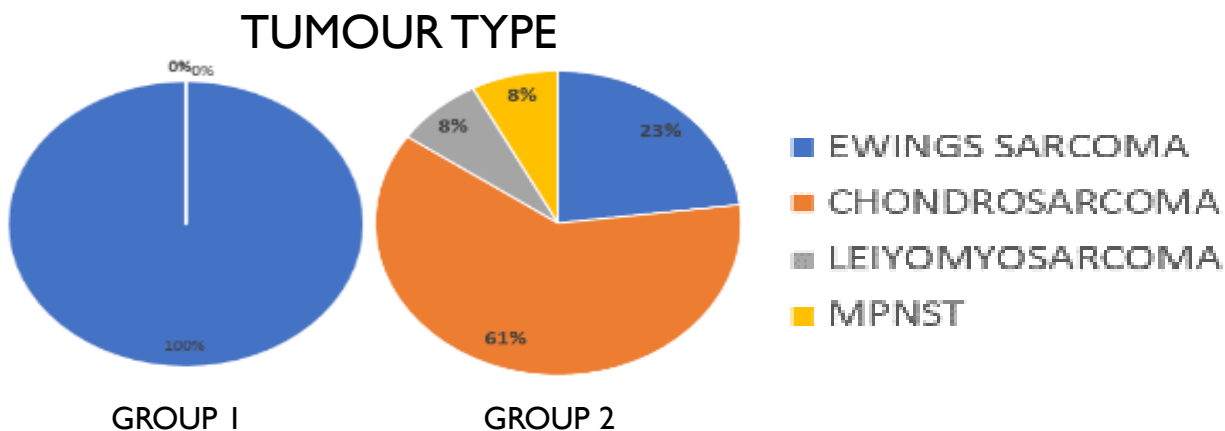
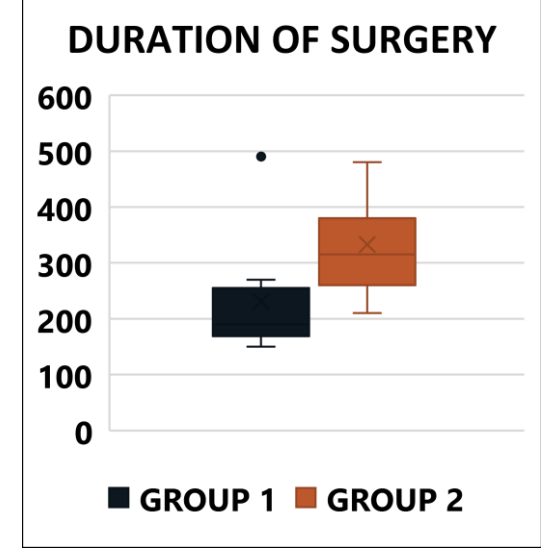
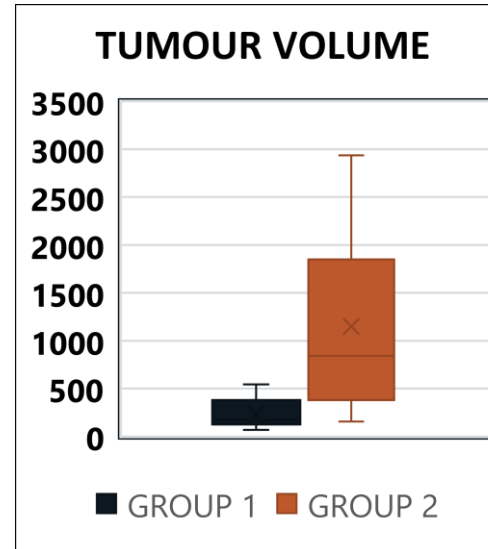
OUTCOMES ASSESSED

- ICU admissions
- Number of PRBC transfusions given
- Wound complications
- Duration of intravenous antibiotics
- Need for second surgery
- 30 days readmission
- 30 days mortality



RESULTS

- A **higher tumour volume** was associated with higher blood loss.
- **Longer surgical times** were associated with higher blood loss.
- **Type I/II/III and Type I/II/III/IV resections** were associated with a higher blood loss.
- No significant difference was found between the two groups in terms of need for ICU admission, wound complications, 30-day readmission, 30-day mortality and need for second surgery. However, these events were more common in Group 2 compared to Group 1.



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CONCLUSION

- Surgeons should anticipate massive blood loss in :

Chondrosarcoma

Volume
 ≥ 300 cc

Duration
of
procedure
 ≥ 4 hours

Resection
involving the
Acetabulum and
Pubis (Type I/II/III
& Type I/II/III/IV).

- The limitation of our study was that we were able to look at the perioperative outcomes alone. It will be interesting to look at the long-term outcomes of these patients to understand if surgery had benefited them in improving their longevity. We would recommend long term follow up studies in pelvic tumour patients with large tumour volumes and massive intraoperative blood loss.