Cleveland Clinic Children's

# Non-surgical Silo for the management of giant omphalocele

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## AIM

We report outcomes of a staged management approach for closure of giant omphaloceles during the neonatal period.

## METHODS

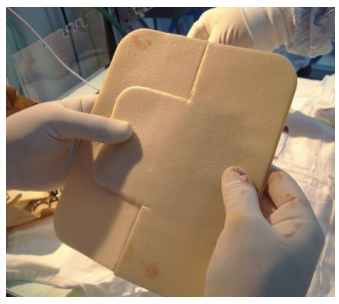
**Study overview:**

- Retrospective, multicenter cohort study from 1994 to 2024.
- Giant Omphalocele:
  - > 5 cm in diameter
- Containing over 50% of the liver

**Silo Confection Technique:**

- Involves creating a silo with an adhesive hydrocolloid dressing.
- A simulated closure can be achieved prior to definitive closure to ensure the patient's tolerance.


Giant Omphalocele


Step 1: T-shaped Hydrocolloid


Step 2: Fix the base of the "T" to the skin


Step 3: Wrap the omphalocele


Step 4: Repeat procedure on the contralateral side


Step 5: Put 2 tongue depressors on the top


Step 6: Progressive reduction of the silo


Step 7: Take the abdomen to flat




Step 8: Amnion inversion



Step 9: Surgical closure

## RESULTS

**Patients charateristics:**

- 55 patients
- Average birth weight was 2766 grams
- Average GA 37 weeks
- Associated comorbidities were present in 37.5% of cases

**Non-surgical silo outcomes:**

- Anatomical closure was achieved in 95% of cases.
- An absorbable mesh was used to reinforce closure in 4 patients
- A permanent mesh was required for closure in 2 patients (5%).
- There was no mortality associated with the nonsurgical silo technique. Though 4 died of associated malformations.

## CONCLUSION

The staged silo management technique for giant omphaloceles demonstrated in this study is safe and effective, reducing both closure time and potential morbidity and mortality when compared with medical management or traditional surgery, respectively.

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