

A Systematic Approach To The Management Of Massive Recurrent Ventral Hernias Using Tissue Expansion

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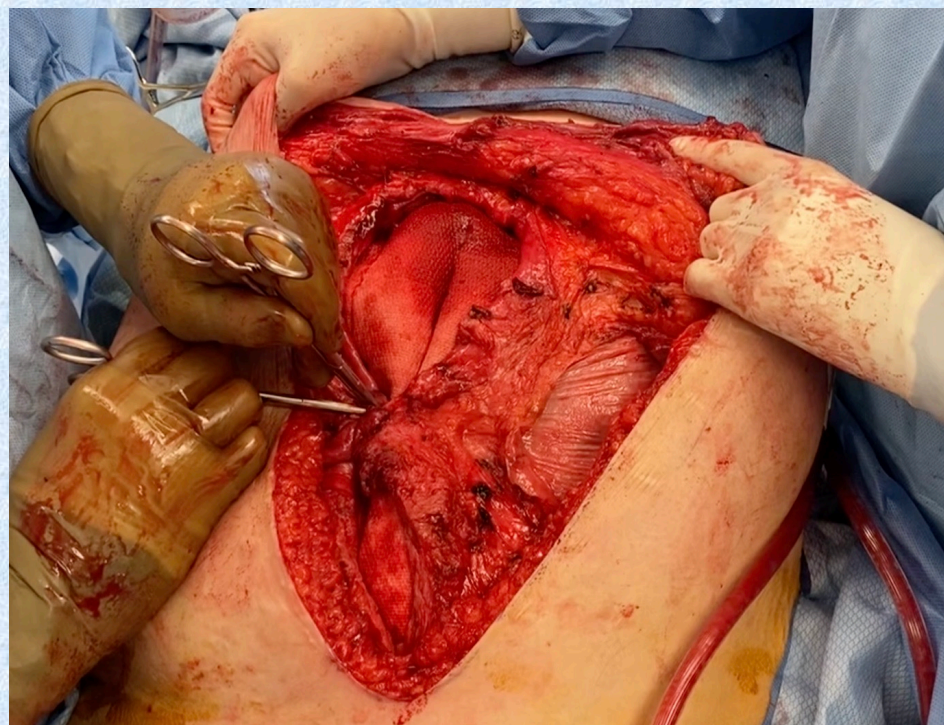
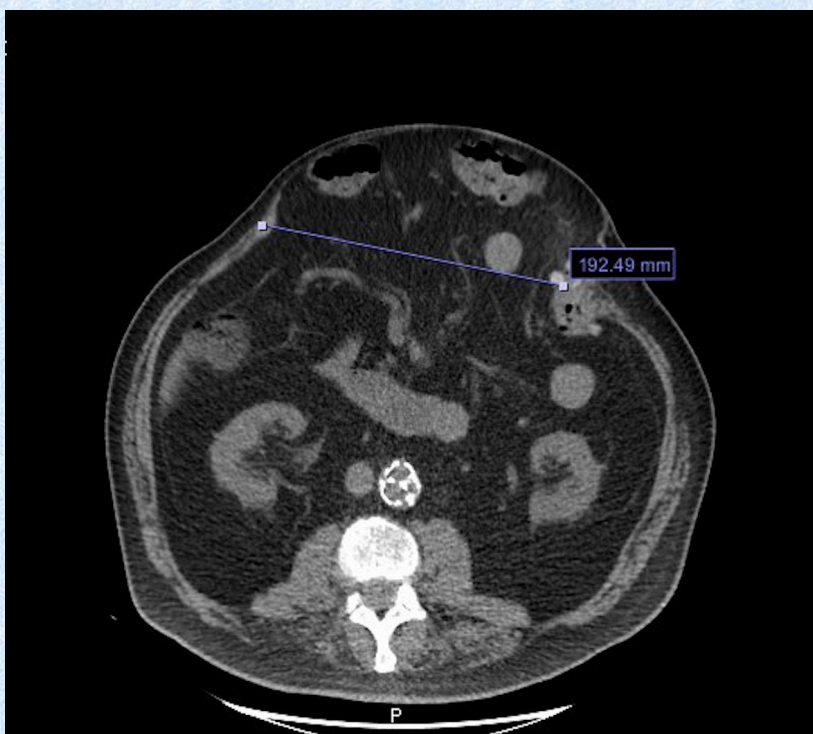
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Introduction and Purpose

Massive recurrent ventral hernias (MRVHs) in adults pose a significant challenge for reconstructive surgeons due to complexity at multiple levels. The use of staged tissue expansion has been described as a helpful adjunct for augmentation of abdominal wall domain. We propose an algorithm based on this method.

Methods

A retrospective review of all patients who underwent abdominal wall tissue expansion for MRVH’s by the senior author over a ten year period was performed. Outcome measures included primary fascial closure, recurrence, and surgical morbidity.



Expanders were placed in the sub-external oblique plane and expanded over a period of 8 weeks before hernia repair

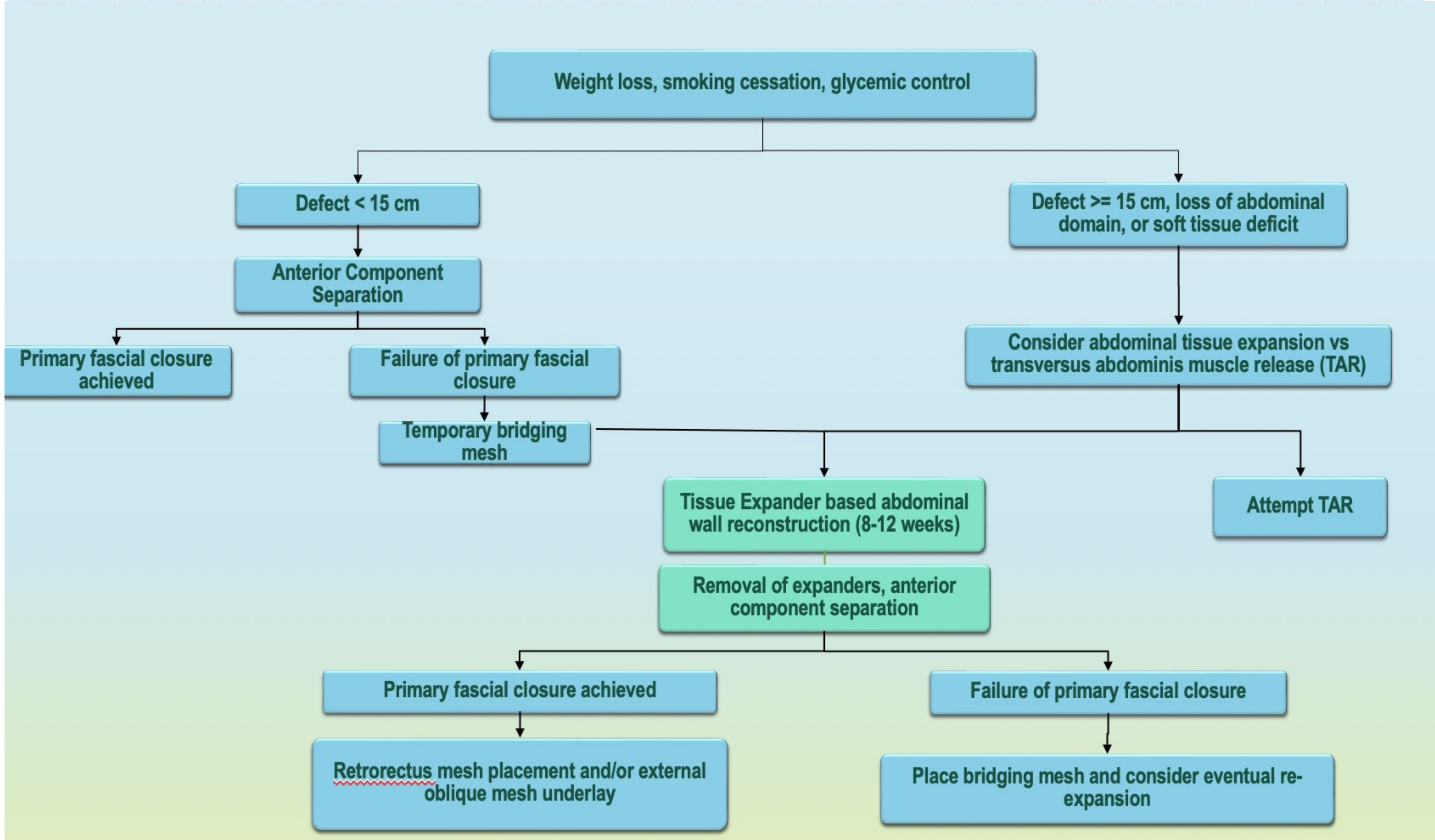
Results

- Fifty seven patients met selection criteria, 30% were female with mean BMI of 32.6 (18.5-54.9), aged 62.5 (32-87) years-old. Hernia width averaged 18.3 cm (range 8-30). Primary musculofascial repair was obtained in 63% of patients; the remainder required bridging mesh.
- Average follow-up was 27 months. The ventral hernia recurrence rate in this highly co-morbid cohort was only 16.6%. Surgical site seroma was the most common complication.

Complications after Hernia Replacement	
SSO (n, %)	28, 45.9%
Wound Related (n, %)	18, 29.5%
Seroma (n, %)	14, 23.0%
TE Replacement (n, %)	0, 0.0%
TE Leak (n, %)	0, 0.0%
Unplanned Readmission (n, %)	20, 32.8%
Recurrence at 6mo (n, %)	8, 13.6%
Recurrence at 12mo (n, %)	11, 18.6%

Complications after TE placement	
SSO (n, %)	3, 4.9%
Wound Related (n, %)	1, 1.6%
Seroma (n, %)	2, 3.3%
TE Replacement (n, %)	4, 6.6%
TE Leak (n, %)	2, 3.3%
Unplanned Readmission (n, %)	3, 4.9%
Operative Covariates	
Panniculectomy (n, %)	40, 70.2%
Mesh Bridge (n, %)	21, 36.2%

Proposed Approach to the “Unconquerable” hernia



Conclusion

Staged abdominal wall expansion to address deficiencies in skin and potentially the myofascial layer can be used as an adjunct when traditional methods have failed.

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-Ross SW, Wormer BA, Kim M, Oommen B, Bradley JF, Lincourt AE, Augenstein VA, Heniford BT. Defining surgical outcomes and quality of life in massive ventral hernia repair: an international multicenter prospective study. *Am J Surg*. 2015 Nov;210(5):801-13. doi: 10.1016/j.amjsurg.2015.06.020. Epub 2015 Aug 20. PMID: 26362202.