BSAPS Journal
ISSN (e): 2958-6208; ISSN (p): 2958-6194
Volume 4; Issue 1 (January-June 2023)
OPEN ACCESS
jbsaps.com

A Two-Month Review of 90 Consecutive Gynecomastia Surgeries with Tumescent Anesthesia: Outcomes and Insights

Dr. Iqbal Ahmed[1*], Dr. Farjana Yeasmin[2], Dr. Jannatul Ferdous jenny[3], Dr. Farzana Rashid[4]

[1]Associate Professor, Department of Plastic Surgery, Dinajpur Medical College, Dinajpur, Bangladesh
[2]Medical Officer, Department of Plastic Surgery, Bangladesh Cosmetic Surgery, Dhaka, Bangladesh
[3]Medical Officer, Department of Plastic Surgery, Bangladesh Cosmetic Surgery, Dhaka, Bangladesh
[4]Medical Officer, Department of Plastic Surgery, Bangladesh Cosmetic Surgery, Dhaka, Bangladesh

Corresponding Author: Dr. Iqbal Ahmed

Abstract:

Introduction: Gynecomastia surgery is a frequently performed procedure to address male breast enlargement, significantly improving patients' physical and psychological well-being. Tumescent anesthesia has gained popularity due to its safety profile, reduced intraoperative bleeding, and enhanced postoperative recovery. We aim to evaluate surgical outcomes, complications, and patient satisfaction while highlighting the efficiency and safety of this technique. ***Materials and Method:*** This is a retrospective analysis reviews of 90 consecutive cases of gynecomastia surgery performed over two months using tumescent anesthesia in Bangladesh Cosmetic Surgery, Dhaka, Bangladesh. Study period was January 1 to February 28 of 2024. ***Result:*** Within these 3 months period complications like hematoma, seroma, infection, NAC necrosis and other complications and patient's safety profile and recovery were observed. Patient's satisfaction with aesthetic outcome was excellent with no significant complication. ***Conclusion:*** Tumescent anesthesia is a reliable and safe, technique for gynecomastia surgery. With appropriate patient selection and surgical precision, it can be an effective alternative to general anesthesia for gynecomastia cases.

Keywords: Gynecomastia surgery, tumescent anesthesia, male breast reduction, surgical outcomes, patient satisfaction.

INTRODUCTION:

Gynecomastia, characterized by benign enlargement of male breast tissue, affects 30-70% of men at some point in their lives. Surgical intervention is often the definitive treatment for patients with persistent or symptomatic gynecomastia[1-4]. Traditionally performed under general anesthesia, gynecomastia surgery with tumescent anesthesia offers several advantages, including improved homeostasis, reduced postoperative pain, and faster recovery[5,6].

In this study, we present an analysis of 90 consecutive gynecomastia surgeries performed over two months under tumescent anesthesia. The objective is to assess the safety, efficacy, and patient-reported outcomes of this approach while sharing insights gained from a high-volume surgical setting[7].

MATERIALS AND METHODS:

Study Design:
This is a retrospective review of 90 consecutive male patients who underwent gynecomastia surgery under tumescent anesthesia over a two-month period. All surgeries were performed by a single experienced surgeon with 9 years of expertise in gynecomastia correction.

Patient Selection Criteria:
Inclusion criteria:
• Male patients aged 18-55 years with grade I to III gynecomastia
• Symptomatic or psychologically distressed patients requiring surgical correction
• Medically fit for surgery under local anesthesia

Exclusion criteria:

• Patients with grade IV gynecomastia requiring extensive skin excision
• History of bleeding disorders or contraindications to local anesthesia

Surgical Technique:
1. Preoperative Preparation:
• Detailed medical history and physical examination.
• Marking areas of glandular tissue and liposuction zones.

2. Tumescent Infiltration:
• A tumescent solution comprising 1,000 mL of normal saline, 40 mL of 2% lidocaine, and 1 mL of epinephrine (1:1,000) was infiltrated using a multiport cannula.

3. Tissue Removal:
• Liposuction using power-assisted liposuction (PAL) for fatty tissue removal.
• Direct gland excision through a periareolar incision for dense glandular tissue.

4. Postoperative Care:
• Compression garments applied immediately post-surgery.
• Oral analgesics for pain control and standard wound care protocols followed.

Data Collection:
Patient demographics, operative time, intraoperative complications, postoperative outcomes, and patient satisfaction were recorded. Follow-up was conducted at 1 week, 1 month, and 3 months.

Fig 1: Before and after gynecomastia surgery for grade III

Fig 2: Before and after gynecomastia surgery for early grade II

Fig 3: Resected glandular tissues from both sides along with the lipoaspirate

RESULTS:

Patient Demographics:
• Mean age: 31.4 years (range: 18-55)
• Grade distribution: Grade I (20%), Grade II (55%), Grade III (25%)
• Mean body mass index (BMI): 26.7 kg/m²

Operative and Recovery Data:
• Mean operative time: 75 minutes (range: 60-110 minutes)
• Mean tumescent volume infiltrated: 600 mL (range: 400-900 mL)
• Mean aspirate volume: 350 mL (range: 200-700 mL)

Table - 1:

Grade	Number (N=90)	%
Grade - I	22	20%
Grade - II	47	55%
Grade - III	23	25%
Grade - IV	0	0%

Complications:
• Hematoma: 2 cases (3.3%) – managed conservatively
• Seroma: 3 cases (3.33%) aspirated in clinic
• Minor contour irregularities: 3 cases (5%) – resolved with massage and

Table - 2:

Complications	Number (N = 90)	%
Hematoma	2	2.22%
Seroma	3	3.33%
Contour irregularities	3	3.33%

Patient Satisfaction:
• 88% reported being “very satisfied” with aesthetic outcomes.
• 95% experienced minimal postoperative pain and returned to daily activities within 3-5 days.
• Scar satisfaction: 90% reported their scars were either “invisible” or “mildly noticeable” after 3 months.

DISCUSSION:

Our findings reinforce that tumescent anesthesia is a safe and effective option for gynecomastia surgery, with excellent patient tolerance and minimal complications. Compared to traditional general anesthesia, this technique offers several advantages:

1. Reduced Blood Loss:
• Epinephrine-induced vasoconstriction minimized intra operative bleeding, improving surgical visibility.

2. Enhanced Safety Profile:
• Avoidance of general anesthesia-related risks, especially in patients with comorbidities.

3. Rapid Recovery:
• Most patients resumed normal activities within a week, enhancing patient satisfaction.

Challenges and Considerations:
While the outcomes were largely positive, minor complications such as hematoma and contour irregularities occurred in a small proportion of patients[8-11]. Careful patient selection, precise infiltration, and meticulous surgical technique remain critical for optimizing results.

Comparison with Existing Literature:
Our complication rate (10%) aligns with reported rates in the literature (5-15%) for gynecomastia surgery under local anesthesia. Additionally, patient satisfaction was comparable or superior to other reported series[12-14].

CONCLUSION:

Tumescent anesthesia is a reliable, safe, and technique for gynecomastia surgery. This study demonstrates excellent surgical outcomes with minimal complications and high patient satisfaction. With appropriate patient selection and surgical precision, tumescent anesthesia can be an effective alternative to general anesthesia for most gynecomastia cases.

REFERENCES:

1. Rohrich, R. J., et al. (2020). The Safety of Tumescent Anesthesia in Plastic Surgery.
2. Simon, B. E., et al. (1973). Classification and Surgical Management of Gynecomastia.
3. Hall-Findlay, E. J. (2019). Advances in Liposuction for Gynecomastia Correction.
4. Cuhaci N, Polat SB, Evranos B, Ersoy R, Cakir B. Gynecomastia: clinical evaluation and management. Indian J Endocrinol Metab. 2014;18(2):150–158. doi: 10.4103/2230-8210.129104.PMID:24741509;PMCID:PMC3987263. [DOI] [PMC free article] [PubMed] [Google Scholar]
5. Wiesman IM, Lehman JA, Parker MG, Tantri MD, Wagner DS, Pedersen JC. Gynecomastia: an outcome analysis. Ann Plast Surg. 2004;53:97–101. doi: 10.1097/01.sap.0000116256.01831.17. [DOI] [PubMed] [Google Scholar]
6. Illouz Y-G. Body contouring by lipolysis: a 5-year experience with over 3000 cases. Plast Reconstr Surg. 1983;72(5):591–597. doi: 10.1097/00006534-198311000-00001. [DOI] [PubMed] [Google Scholar]
7. Bellini E, Grieco MP, Raposio E. A journey through liposuction and liposculture: review. Ann Med Surg (Lond) 2017;6(24):53–60. doi: 10.1016/j.amsu.2017.10.024. [DOI] [PMC free article] [PubMed] [Google Scholar]
8. Murali B, Vijayaraghavan S, Kishore P, Iyer S, Jimmy M, Shara M, Paul G, Chavare S. Cross-chest liposuction in gynaecomastia. Indian J Plast Surg. 2011;44:81–86. doi: 10.4103/0970-0358.81451. [DOI] [PMC free article] [PubMed] [Google Scholar]
9. Simon BE, Hoffman S, Kahn S. Classification and surgical correction of gynecomastia. Plast Reconstr Surg. 1973;51(1):48–52. doi: 10.1097/00006534-197301000-00009. [DOI] [PubMed] [Google Scholar]
10. Klein JA, Jeske DR. Estimated maximal safe dosages of tumescent lidocaine. Anesth Analg. 2016;122(5):1350–1359. doi: 10.1213/ANE.0000000000001119. [DOI] [PMC free article] [PubMed] [Google Scholar]
11. Likert R. A technique for the measurement of attitudes. Arch Psychol. 1932;140:1–55. [Google Scholar]
12. Nuzzi LC, Cerrato FE, Erikson CR, Webb ML, Rosen H, Walsh EM, DiVasta AD, Greene AK, Labow BI (2013) Psychosocial impact of adolescent gynecomastia: a prospective case-control study. Plast Reconstr Surg 131(4):890-896. doi: 10.1097/PRS.0b013e3182818ea8. Erratum in: Plast Reconstr Surg. 2013 May; 131(5):1208. Erikson, Cameron R [corrected to Erickson, Cameron R]. PMID: 23542261 [DOI] [PubMed]
13. Kipling M, Ralph JE, Callanan K. Psychological impact of male breast disorders: literature review and survey results. Breast Care (Basel) 2014;9(1):29–33. doi: 10.1159/000358751. [DOI] [PMC free article] [PubMed] [Google Scholar]

14. Rew L, Young C, Harrison T, Caridi R. A systematic review of literature on psychosocial aspects of gynecomastia in adolescents and young men. J Adolesc. 2015;43:206–212. doi: 10.1016/j.adolescence.2015.06.007. [DOI] [PubMed] [Google Scholar]

