Subjective items to be considered in lipoabdominoplasty procedures under epidural anesthesia to increase their satisfaction

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Abstract

Background: Patient satisfaction is increasingly recognized as a vital indicator of healthcare service quality. It aids in identifying healthcare system shortcomings and improving patient trust. Factors influencing patient satisfaction during anesthesia services have been studied globally, but there is a lack of research in the context of lipoabdominoplasty under combined lumbar spinal-epidural anesthesia (CLSEA).

Objective: To evaluates patient satisfaction with lipoabdominoplasty under CLSEA, focusing on various intraoperative factors that may affect satisfaction.

Patients and Methods: This prospective observational cross-sectional study included adult patients undergoing lipoabdominoplasty under CLSEA without complications. Patients completed a structured questionnaire assessing satisfaction with intraoperative care. The questionnaire addressed factors related to the information provided, decision-making involvement, physical comfort, emotional support, and respect for patient values.

Results: The questionnaire encompassed three types of questions: anesthesia quality, factors causing intraoperative annoyance, and patient-team interaction. The majority of patients found epidural anesthesia favorable. Factors causing moderate annoyance included surgery duration, stress, fixed position, feeling cold, and shivering. Patients reported low annoyance with factors like team discussions, anxiety, surgical light, dizziness, thirst, itching, nausea, vomiting, noise, pain, and dyspnea. Patients generally had a high rate of good reactions toward the surgical team, but less than 50% requested more respect and thorough medication information.

Conclusion: This study offers insights into patient satisfaction with lipoabdominoplasty under CLSEA, shedding light on factors affecting their experiences. The findings underline the importance of addressing patient concerns and expectations to enhance overall satisfaction and quality of care.

Keywords: Lipoabdominoplasty, Epidural anesthesia, Patient satisfaction

Introduction

Patient-reported outcome measures (PROMs) represent a multifaceted concept that takes into account various dimensions, including social, cultural, mental, emotional, and physical aspects [1]. Their effectiveness hinges on the exceptional quality of care...
delivered and its alignment with patient expectations, as dissatisfaction can arise when disparities exist. [2,3]. Gauging patient satisfaction with preoperative and intraoperative anesthesia care proves challenging. Existing anesthesia-related questionnaires, such as those found in the literature [4-11], are challenging to compare due to differences in measured aspects. These encompass information provision, adverse anesthesia outcomes, anxiety, surgery rescheduling, interactions with the anesthetist, respect, and confidence. Improving patient satisfaction questionnaires involves consolidating these dimensions [4,12].

The study aimed to develop a comprehensive, self-administered questionnaire that could consistently assess patient satisfaction with anesthetic and perioperative care. This questionnaire covered a range of topics, including the level of knowledge, expertise, satisfaction with services received, and interactions between staff and patients. Abdominoplasty, a common cosmetic surgery with an overnight inpatient stay, is associated with significant morbidity and mortality rates. The risk linked to general anesthesia rivals or exceeds that of cosmetic surgery itself [13].

In contrast to general anesthesia, epidural anesthesia offers several advantages. These include a shorter post-anesthesia recovery, reduced hospital stay, decreased postoperative nausea and vomiting, lowered pulmonary complications, and improved postoperative outcomes [14].

The medical community now recognizes the importance of recording patient satisfaction as a crucial parameter in evaluating healthcare services [15,16]. This is pivotal for addressing system shortcomings, meeting patient expectations, fostering trust, and enhancing cooperation in national healthcare policies. Factors influencing satisfaction are under global scrutiny, with validated studies across different ethnicities focusing on anesthesia services [17-21].

Patient satisfaction serves as a key indicator of the patient’s experience with healthcare services and the quality of care provided [22,23]. It is directly linked to healthcare utilization, and assessing patient opinions on care and treatment is vital for improving service quality, identifying barriers, and ensuring that local health services meet patient needs [24].

Patient satisfaction with perioperative services is another intricate domain influenced by a variety of factors. Patients might opt for a different healthcare facility and surgeon depending on their expectations and overall satisfaction with the care provided [25]. Key elements in approaching surgical patients, include reducing anxiety and achieving complete pain control in the postoperative stage, these will optimize excellent recovery and patient satisfaction [26]. Recognizing the need for intraoperative measures when patients are aware intraoperatively; demands a significant growing acknowledgment of patient satisfaction research as an independent growth indicator. This underscores the importance of emphasizing patient report outcome measures based on the standard of care obtained [27].

Multiple facets contribute to patient contentment with the course of care. These include inclusive contentment, interacting
connections, expert proficiency, patient assessment of results, materials, continuity of care, facility accessibility, procedural and details about treatment, service system, and treatment costs [28]. Patient satisfaction can be influenced by various factors, including preoperative expectations, overall health conditions, psychological aspects, and the type of treatment received [29,30]. Among these, preoperative anticipations have been identified as key predictors of post-surgical experiences, dissatisfaction, and mood disorders [31-33].

**Patients and Methods**

This prospective observational cross-sectional study included adult patients who underwent lipo abdominoplasty at Jian Private Hospital over two years under CLSEA, without experiencing any intraoperative or postoperative complications. Exclusion criteria encompassed patient refusal for any reason, administration of sedative or analgesic drugs during surgery, unreliable responses on the Google form, as well as any surgical or anesthetic complications occurring during or after the procedure.

**Questionnaire**

It was conducted a cross-sectional survey utilizing a well-defined questionnaire featuring dichotomous questions to assess patient satisfaction during the intraoperative period. Based on the existing literature, our investigation focused on five fundamental sections: the extent of information provided, involvement in decision-making, the level of physical comfort and the occurrence of side effects, the availability of emotional support, and respect for patient values. The attached questionnaire comprehensively covers all these factors. Additionally, all participating patients were required to access the questionnaire through a Google form linked to their available social media connections, ensuring that they responded to all questions. Appendix (1) The satisfaction questionnaire for patients who underwent lipoabdominoplasty under combined lumbar spinal-epidural anesthesia was sent to them through their mobile numbers as a Google Form.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is it a good type of anesthesia?</td>
<td></td>
</tr>
<tr>
<td>2. Did you annoyed by the noise and voice in the operation theatre?</td>
<td></td>
</tr>
<tr>
<td>3. Did you feel pain intraoperatively?</td>
<td></td>
</tr>
<tr>
<td>4. If the above is yes. How many times?</td>
<td></td>
</tr>
<tr>
<td>5. Did you have dyspnea intraoperatively?</td>
<td></td>
</tr>
<tr>
<td>6. Did you have shivering intraoperatively?</td>
<td></td>
</tr>
<tr>
<td>7. Did you feel cold intraoperatively?</td>
<td></td>
</tr>
<tr>
<td>8. Did you have nausea intraoperatively?</td>
<td></td>
</tr>
<tr>
<td>9. Did you vomit intraoperatively?</td>
<td></td>
</tr>
</tbody>
</table>
10. Did you have pruritus intraoperatively?
11. Did you feel thirsty intraoperatively?
12. Did you have dizziness intraoperatively?
13. Did you have any stress intraoperatively?
14. Did you feel secure intraoperatively?
15. Did you disturbed by the intense light?
16. Did you disturbed by the delay procedure?
17. Did you disturb by your stay in a fixed position?
18. Did you feel anxious during surgery?
19. Did the operation theatre team discuss medical subjects, ignoring your presence?
20. Did the operation theatre team deal with you with respect and dignity?
21. Did the operation theatre team provide enough information about medications and their adverse effects?
22. Did find the results of this surgery as before described by team?
23. Should you undergo the same operation once again, would you rather have the same anesthetic procedure?

Data collection

In all cases, a pre-anesthetic consultation was conducted by both the anesthetist and the participating surgeon for lipo abdominoplasty candidates. During this consultation, baseline information was documented on a separate form, including age, gender, American Society of Anesthesiologists classification, marital status, educational background, comorbid conditions, and any previous psychiatric history, maintaining a greater differentiation from the postgraduate form. Questionnaires were distributed to the intended patients within one week following their discharge home. Patients were required to independently fill out these questionnaires and submit them to the designated response station. The responses were then automatically recorded and collected for analysis.

Statistical Analysis

Data was analyzed using SPSS version 12, developed by IBM Corporation in Armonk, NY. A value of 2 was given to the answer of YES for good impression questions and a value of 1 for the answer of NO. In the reverse a value of 1 was given to the answer of YES for bad impression questions, and a value of 2 for the answer of NO. by using descriptive statistics through frequency, the sum of values would be calculated to get the categories for each question.

Results

The questions in the questionnaire were of three types distributed without any order on the sheet. The questions were 23 in number, and the customers had to answer each question with yes or no. They were distributed as two questions concerned with the quality of anesthesia, with yes answers
directly related to patient satisfaction. More than 75% of patients mentioned epidural anesthesia as a good option for their operation. Nevertheless, about 50% of patients felt unsecured intraoperatively Table (1).

**Table (1): The quality of anesthesia (> of 155=75% of patients had positive reaction)**

<table>
<thead>
<tr>
<th>Type of Questions</th>
<th>Is it a good type of anesthesia?</th>
<th>Did you feel secure intraoperatively?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Answers</td>
<td>Valid 103</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Missing 0</td>
<td>0</td>
</tr>
<tr>
<td>Sum of points</td>
<td>189.00</td>
<td>149.00</td>
</tr>
</tbody>
</table>

Another group of questions 17 in number demonstrated the factors that could bother the patient intraoperatively, answering yes, bringing the focus on that factor as an annoying item for the patient intraoperatively. The results were that long-term surgery, the feeling of stress, staying in one position, and feeling cold and shivering have a medium rate of bothering patients under high epidural anesthesia for lipo abdominoplasty. On the other hand, the rate of bothering was low for items like discussions between members of the surgical team, feeling anxiety, intense surgical light, dizziness, thirst, itching, nausea, vomiting, noise, pain, and dyspnea Table (2).

**Table (2): Factors bothering patients during regional anesthesia (high rate of bothering=103-137 medium rate of bothering=138-172 & low rate of bothering=173-206)**

<table>
<thead>
<tr>
<th>Type of Questions</th>
<th>Did you annoyed by noise and voice in operation theatre?</th>
<th>Did you feel pain intraoperatively?</th>
<th>Did you have dyspnea intraoperatively?</th>
<th>Did you have stress intraoperatively?</th>
<th>Did you feel thirsty intraoperatively?</th>
<th>Did you have any stress intraoperatively?</th>
<th>Did you disturbed by delay procedure?</th>
<th>Did you disturbed by your stay in fixed position?</th>
<th>Did you disturbed by intense light?</th>
<th>Did you feel anxious during surgery?</th>
<th>Did you disturbed by your stay in fixed position?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Answers</td>
<td>Valid 103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Missing 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sum of points</td>
<td>191</td>
<td>186</td>
<td>192</td>
<td>197</td>
<td>168</td>
<td>146</td>
<td>189</td>
<td>197</td>
<td>199</td>
<td>182</td>
<td>161</td>
</tr>
</tbody>
</table>

The third type of question (4 in number) was about applying light to the relationship between the surgical team and the patients. Those mostly have no problem doing another
operation with the same type of anesthesia. Meanwhile, less than 50% of patients asked for a higher level of respect and enough information about medications. Although they were satisfied with the final results of surgery, less than 35% mentioned that they found these results different from what had been described by the surgical team preoperatively Table (3).

Table (3): The reaction of the patients with the surgical team (103-137=low rate of good reaction 138-172=medium rate of good reaction, 173-206=high rate of good reaction)

<table>
<thead>
<tr>
<th>Type of Answers</th>
<th>Did the operation theatre team deal with you with respect and dignity?</th>
<th>Did you find the results of this surgery as described by the team?</th>
<th>Was the operating room team thorough in explaining medication details and their potential side effects?</th>
<th>If you were to undergo the same operation again, would you prefer to have the same anesthesia procedure once more?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Answers</td>
<td>Valid: 103</td>
<td>103</td>
<td>103</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Missing: 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sum of points</td>
<td>159.00</td>
<td>170.00</td>
<td>166.00</td>
<td>174.00</td>
</tr>
</tbody>
</table>

Discussion
Corresponding to this survey, a study conducted in Norway revealed that significant determinants of patient satisfaction included sufficient information regarding health status, treatment options, and interactions with nursing and medical staff [34]. Conversely, perioperative discomfort emerged as the primary factor negatively impacting patient satisfaction [35]. In contrast, the quality of the information did not directly influence patient satisfaction. Contrastingly, patient satisfaction was found to be influenced by various factors such as admission procedures, the quality of the information provided, the level of nursing care, and interactions with both physicians and nurses among surgical in-patients, as demonstrated in one study [36]. Meanwhile, another study emphasized that postoperative pain, the duration of waiting for surgery, and the conditions in the patient changing room were the primary factors that had the greatest impact on patient satisfaction [37].

Age differences were noted, with older inpatients expressing higher satisfaction levels, while younger outpatients reported greater satisfaction. For inpatients, crucial factors included information at admission, awareness of the type of professional attending to the patient, and informed consent. Outpatients, on the other hand, were found to be significantly influenced by informed consent and the quality of information provided regarding home care after discharge, as indicated in one study [38]. Additionally, a study conducted at Brigham, a tertiary teaching hospital, showed that improving service delivery processes, assessing patient load, and reducing waiting times led to sustained clinical effectiveness and an overall enhancement in patient satisfaction in preoperative clinic services [39].
In the context of breast surgery, it was observed that younger patients, especially those facing postoperative complications, tended to report lower levels of satisfaction [40]. On orthopedic wards, surgical patients generally expressed moderate satisfaction with nursing care, but they were notably satisfied with the professional demeanor of the nurses. However, they reported less satisfaction with the amount of time nurses spent with them [41].

In a prospective cohort study that included 4,709 patients who underwent joint arthroplasty, it was observed that patient satisfaction was notably affected by several factors. Meeting preoperative expectations, effective management of symptomatic pain after surgery, and the overall hospital experience were identified as significant contributors to patient satisfaction [42].

Furthermore, a study conducted in Cyprus revealed that patients generally had higher levels of satisfaction with the technical aspects of nursing care. However, they reported lower satisfaction when it came to information provision and hospitalization conditions, particularly regarding aspects such as food quality and resting time [43].

In a study conducted within a surgical ward at a university hospital in Saudi Arabia, researchers identified factors positively affecting patient satisfaction, such as clear explanations by a responsible physician, positive reception by physicians in the clinic, and a welcoming reception by the surgical team in the ward. On the contrary, several negative factors were found to influence patient satisfaction. These included extended waiting times in both the emergency department and clinic, responses received from consulting doctors from other departments, the quality of explanations provided by the surgical team regarding post-operation lifestyle, and the overall quality of hospital food [44].

Likewise, a study conducted in Scotland focused on patient satisfaction following surgery and found that factors negatively impacting satisfaction included waiting times between admission, the actual operation, and discharge, as well as postoperative pain. Despite these concerns, the overall level of patient satisfaction remained high [45].

At a teaching hospital in Nigeria, positive factors that influenced patient satisfaction included patient-provider relationships, inpatient services, hospital facilities, and ease of access to care. On the other hand, negative factors included waiting times, costs, delayed appointments, missing investigation results, and issues related to patient folders [46].

In a comparative analysis of patient satisfaction with cataract surgical services between a public tertiary and a private secondary eye care facility in Nigeria, higher satisfaction levels were reported regarding pre-consultation time and surgery costs at the public tertiary facility [47].

Furthermore, a study assessing determinants of patient satisfaction with outpatient health services at both public and private hospitals in Addis Ababa, Ethiopia, highlighted factors such as self-rated health status, service expectations, perceived adequacy of consultation duration, perceived technical competence of providers, welcoming approaches, and perceived body language as determinants of satisfaction in both public and private healthcare settings [48].
Conclusions

This study offers insights into patient satisfaction with lipoabdominoplasty under CLSEA, shedding light on factors affecting their experiences. The findings underline the importance of addressing patient concerns and expectations to enhance overall satisfaction and quality of care.

Recommendations

To further examine each factor that affects the patients' satisfaction in lipoabdominoplasty operations under CLSEA separately. Anesthesiologists and plastic surgeons should consider the above factors that had a positive effect on patient satisfaction and try to minimize the ones with negative effects as much as possible.

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Ethical clearance: This study was approved by the Institutional Review Board of the University of Duhok, the scientific head of College of Health Sciences.

Conflict of interest: Nil

References


العناصر الذاتية المراد اعتبارها في عمليات شد البطن بتخدير العمود الفقري لزيادة الرضا المرضي

حيدر ناصر محمد 1, كوردو أكرم قرداغي 2

الملخص

خلفية الدراسة: أصبح إرضاء المرضى يُدرك بشكل متزايد كمؤشر حيوي لجودة خدمات الرعاية الصحية. يساعد في تحديد نقاط الضعف في نظام الرعاية الصحية وتعزيز ثقة المريض. تم دراسة العوامل التي تؤثر على رضا المرضى خلال خدمات التخدير على نطاق واسع على مستوى العالم، ولكن هناك نقص في البحث في سياق إجراء عملية شد البطن مع تخدير العمود الفقري القطني-التدوير الجوي المشترك.

أهداف الدراسة: تقييم رضا المرضى على عملية شد البطن تحت تأثير CLSEA، مركزًا على مختلف العوامل التي قد تؤثر على الرضا خلال العملية.

المريض والطريق: شملت هذه الدراسة المستعرضة للمرضى المعالجين في خدمة الرعاية المريضة باللغتين الذين بصفتهم مريضين شملت المرضى الذين تحت تأثير CLSEA شد البطن تحت تأثير CLSEA بدون مضاعفات.

المرضى والطرق: اكتملت الأسئلة استبانًا منهجيًا يقيم رضاهم عن الرعاية الداخلية. وتناول الاستبيان العوامل المتعلقة بالمعلومات المقدمة، والمشاركة في اتخاذ القرار، والراحة الجسدية، والدعم العاطفي، واحترام قيم المريض.

النتائج: شمل الاستبيان ثلاثة أنواع من الأسئلة: جودة التخدير، والعوامل التي تسبب الإزعاج الداخلي، وقد تفاعل المريض مع الفريق. وجدت غالبية المرضى أن تخدير العمود الفقري القطني-التدوير الجوي المشترك مفضلًا. وكانت العوامل التي تسببت في الإزعاج المتوسطة في التعرض، والشعور بالبرودة والشراع، والشعور بالبرودة.

النتائج: أبلغ المرضى عن الإزعاج المنخفض مع العوامل مثل مناقشات الفريق، والقلق، وضوء العملية الجراحية، والحمى، والمشكلات، والصداع، والشعور بالبرودة.

النتائج: وكانت لدى المرضى بشكل عام معدلات عالية من رضاهم عن الفريق الجراحي، ولكن أقل من 50% طلبوا إعطاء أكثر من الاحترام والمعلومات الطبية الشاملة.

الاستنتاجات: تقدم هذه الدراسة رؤى حول رضا المرضى عن عملية شد البطن تحت تأثير CLSEA، مسلطة الضوء على العوامل التي تؤثر في تجاربهم. تؤكد النتائج على أهمية التعامل مع مخاوف وتوقعات المرضى لتعزيز الرضا العام وجودة الرعاية.

الكلمات المفتاحية: شد البطن، تخدير العمود الفقري القطني، رضا المرضى

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