

# Patient satisfaction on drainless outpatient parotidectomy

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## Abstract

**Background:** Parotidectomy is commonly performed as an inpatient procedure due to drain insertion. However recent evidence suggests that drainless outpatient parotidectomy is a safe option with comparable postoperative complication and hospital readmission rates to inpatient parotidectomies. **Objective:** Patient satisfaction on outpatient parotidectomy is unclear and this study aims to report patients' perspective and satisfaction on drainless outpatient parotidectomy. **Design, participants and outcome measures:** Anonymous Core questionnaire for the assessment of Patient Satisfaction' (COPS) for general Day care (COPS-D) questionnaire survey was completed by patients who underwent drainless same day parotidectomy at Ninewells Hospital, Dundee from June 2018 to October 2020. Patient satisfaction on different aspects of their outpatient parotidectomy journey (e.g. pre-admission, admission on ward, in-theatre experience, nursing care, pain control and overall satisfaction) were scored using a five-point Likert scale. **Results:** A total of 31 drainless outpatient parotidectomies were performed and 28 patients completed the patient satisfaction survey. The majority of patients were highly satisfied (i.e. scored 5/5) with their preadmission visit (79.5%), admission on the ward (84.5%), operating room experience (96.4%), nursing care (83.9%), medical care (87.5%), information received (75.0%), autonomy (79.8%) and discharge and after care (61.9%). Despite preferring drainless parotidectomy, 16/28 (57.1%) patients either stayed for less than 23 hours or preferred to stay overnight in the hospital for non-surgical reasons. **Conclusion:** Outpatient parotidectomy is well received by patients and the majority preferred drainless parotidectomy over inpatient parotidectomy with drains. Careful consideration should be given when selecting patients for day case parotidectomy.

## Introduction

The constant emphasis on reducing expenditure within the healthcare system has led to an increase in outpatient procedures and surgeries (1). Ambulatory procedures are an attractive option for both healthcare institutions and patients due to low operative cost, favourable clinical outcomes and increased patient satisfaction (2,3). The American Hospital Association reported that the majority of procedures in the field of otolaryngology are performed as outpatient procedures such as sinus surgeries (4), thyroidectomy (5) and adenotonsillectomies (6)) for the reasons mentioned above.

In current practice, majority of parotidectomies are performed as an inpatient surgery due to drain insertion (7). Percutaneous drain is often inserted during parotidectomies to drain the vascular rich supply of the parotid and collect any post-incisional salivary leakage (7). The majority of the drains are left for 24 hours, increasing hospital admission by 1.5 days (8). Recently, several institutions have adapted drainless outpatient parotidectomy and there is growing evidence in the literature which suggests outpatient parotidectomy is safe and its post-operative complication and hospital readmission rates are comparable to inpatient parotidectomies (9-14).

Although the majority of studies have shown that the complication rates and clinical outcomes of outpatient parotidectomies are similar to inpatient parotidectomies, patients' perspective and satisfaction on outpatient

parotidectomies have not yet been reported. In this study, we aim to evaluate patients' perspective and their satisfaction on drainless outpatient parotidectomy.

## Materials and Methods

This is an observational study and the study is designed based on The Strengthening the Reporting of Observational Studies in Epidemiology (SROBE) statement. Patients who underwent drainless outpatient parotidectomy performed by three experienced surgeons at the Department of Otolaryngology and Head and Neck Surgery, Ninewells Hospital, Dundee, UK from March 2018 to October 2020 were identified. Patients satisfied the outpatient parotidectomy criteria if they were discharged on the same day or within 23 hours of surgery with an overnight stay. These patients were reviewed at the outpatient clinic 4 weeks post-operatively for any complications.

These patients were also invited to respond to the Core questionnaire for the assessment of Patient Satisfaction' (COPS) for general Day care (COPS-D) questionnaire adapted for parotidectomy in the post-operative period (Appendix 1). The questionnaire has been validated and shown to be a reliable and valid tool for measuring satisfaction with day care surgery (15). The questionnaire was sent by post and the results of the questionnaire were collated anonymously. Patient satisfaction on different aspects of their outpatient parotidectomy journey (e.g. pre-admission, admission on ward, in-theatre experience, nursing care, medical care, information, autonomy, discharge and after care) were scored using a 5 point Likert scale. Score of 1 is classified as very dissatisfied, score 2=dissatisfied, score 3=neutral, score 4= satisfied and score 5= very satisfied. Questions on overall patient satisfaction on outpatient parotidectomy were assessed using a yes or no approach (e.g. would you have preferred to stay overnight) (Appendix 1). Pain score at the time of discharge and overall satisfaction with day case parotid surgery were also measured using a scale of 0-10 on the Likert scale (Appendix 1)

## Ethical Consideration

This study was reviewed by NHS Tayside Caldicott committee and approval was obtained.

## Results

A total of 31 patients who underwent outpatient drainless parotidectomy were invited to participate in the questionnaire. Of the 31 patients, all had superficial parotidectomy apart from 3 patients who had additional neck dissection of various extend. The mean age of patients was 54.6 (28-85) years and 17 (54.8%) of them were male.

Out of the 31 patients, 28 (90.3%) patients responded to the COPS-D questionnaire anonymously. A total of 20 (71.4%) patients were discharged on the same-day whereas eight (28.6%) stayed in the hospital for 23-hours for various non-surgical reasons such as medical comorbidities (e.g. type 2 diabetes mellitus, severe asthma), transport arrangements and post-operative anaesthesia recovery.

### Patient satisfaction on outpatient parotidectomy journey

Patient satisfaction on different aspects of their outpatient parotidectomy journey (e.g. pre-admission, admission on ward, in-theatre experience, nursing care, medical care, information given, autonomy and discharge and after care) is shown in Table 1.

Majority of patients were highly satisfied (i.e. scored 5/5) with their preadmission visit (79.5%), admission on the ward (84.5%), operating room experience (96.4%), nursing care (83.9), medical care (87.5%) information received (75.0%) and autonomy (79.8%) in making decision on their medical care. Only 61.9% of patients scored 5/5 on their discharge and after care experience (e.g. information provided on further treatment, transfer of information to external professional such as general practitioners and the discharge procedure). (Table 1)

### Overall satisfaction on drainless outpatient parotidectomy

A total of 23/26 (88.5%) participants did not prefer a drain after parotidectomy and 25/26 (96.2%) of participants would recommend day case parotid surgery to other patients. (Table 2). 87.8% participants (24/28) scored above 9 on a scale of 0-10 for overall satisfaction with day case parotid surgery (Figure 1).

Strikingly, 16/28 (57.1%) participants either stayed or preferred to stay overnight in the hospital after their surgery. Out of the 16 patients, 8 (61.5%) participants ended up staying in the hospital for less than 23 hours due to various medical and social reasons despite not having a surgical drain. The remaining eight patients expressed their interest in overnight hospital stay when completing the questionnaire. (Table 2)

A total of 3/28 (10.7%) participants felt they were discharged prematurely and either the patient or their partner was anxious about the same day discharge. Majority of participants reported no concerns about pain, bleeding, nausea and vomiting but 8/28 (28.6%) participants were anxious about post-surgical wound care. More than half of the participants 16/28 (57.1%) had issues such as discomfort, itch and pain with their balaclava bandage (Table 2). The majority of participants (27/28, 96.4%) felt their pain was under control during discharge and 19/28 (67.9%) patients reported a pain score of less than 3 on a pain scale of 0-10 (Figure 2).

## Discussion

### *Key Findings*

Our study demonstrates that the majority of patients were satisfied with the drainless outpatient parotidectomy and preferred a drainless procedure over inpatient parotidectomy with surgical drains. Patients at our centre also expressed satisfaction with the service provided at the preadmission visit, admission on the ward, operating room experience, nursing care, medical care, information received and autonomy in making decisions regarding their care.

Previous systematic reviews have reported that outpatient parotidectomy is safe and feasible with comparable complication rates and readmission rates to inpatient parotidectomy (10). Using our own case series, we explored our patients' experience on the day case procedure and our findings suggest that patients are highly satisfied with their overall experience. With inpatient and outpatient parotidectomy having comparable clinical outcomes, patient satisfaction gives outpatient drainless parotidectomy an added edge to provide an overall benefit over inpatient parotidectomy. A study by Bentkover et al. in 1996 reported that outpatient satisfaction was high but inpatient satisfaction was higher (13). Similarly, Cheng et al. reported a satisfaction rate of 84% (21 of 25) when patients were asked by surgeons during discharge but the satisfaction on length of stay dropped to 56% (14 of 25) when they were asked again by nurses 6 months later (17). However, both studies had a surgical drain in place during discharge and caring for drains at home increased patients' anxiety. To date, no other studies reported patient satisfaction on drainless outpatient parotidectomy.

Another key finding is that 16/28 (57.1%) of our patients either stayed less than 23 hours or preferred an overnight stay in the hospital despite having undergone drainless parotidectomy. Most patients were admitted overnight either for social reasons, medical comorbidities or anaesthesia recovery time. The remaining patients felt an overnight stay would boost their confidence for discharge and reduce their overall anxiety. Although same-day discharges are highly cost-effective for healthcare institutions, patients' preference for overnight hospital stay needs to be taken into account when performing drainless parotidectomies. In the future, efforts to promote same-day discharge drainless parotidectomy (e.g. patient counselling, pre-operative information packs, post-operative nursing inputs) can be increased to reduce overnight stays in the hospital for non-surgical reasons.

A small proportion of patients also reported dissatisfaction on the discharge and after care experience. Information on further treatment and follow up care post-discharge were not conveyed appropriately to this patient cohort. Some patients reported that their primary care doctors were not aware of their outpatient parotidectomy procedure. It is important to bear in mind that a multidisciplinary approach is crucial for outpatient drainless parotidectomy and effective communication between patient, surgeons, head and neck team and primary care doctors should be emphasised in the future to ensure continuity of care following

discharge.

Lastly, a significant number of patients from our cohort reported issues with the Balaclava pressure bandage (e.g. pain, itch, tightness and discomfort). Although the compression Balaclava bandage facilitates haemostasis control for drainless parotidectomy (19), patient comfort is compromised and other bandage options can be explored in the future without compromising haemostasis.

#### *Strength, limitations and comparison with other studies*

Our study is the first to report patient satisfaction on drainless outpatient parotidectomy in the United Kingdom. A validated questionnaire was also used, improving the reliability of our results. This study also allows us to understand the patients' point of view on drainless outpatient parotidectomy and provides guidance to service providers to improve the current standard of care.

This is a single institution study and the results may be limited by the small sample size. Selection bias when selecting patients for day case procedure may also affect the results negatively. Although our results show that 16/28 (57.1%) of patients preferred to stay overnight in the hospital, the hospital stay of eight patients was justified for various medical and social reasons. This may result in patients having biased responses when responding to questions about their preference to stay overnight. Therefore, patient satisfaction on same day hospital discharge may have been underestimated in our cohort. Surgeon's perspective on drainless outpatient parotidectomy was also not explored, nor was a cost analysis performed to compare the costs of drainless outpatient parotidectomy to those of inpatient parotidectomy. Furthermore, the uni-dimensional nature of the 5 point Likert scale and social desirability factors may compromise the measurement of patient satisfaction in our series.

#### *Clinical applicability of the study*

Our study highlights that the majority of patients are highly satisfied with the drainless procedure and would recommend day case parotid surgery to other patients. However, the results of this study need to be evaluated with caution. Careful consideration should be given when selecting patients for day case parotidectomy. Surgeons should take into consideration that some patients undergoing drainless outpatient parotidectomy may prefer an overnight stay in the hospital for non-medical reasons (e.g. to reduce anxiety) despite not having a surgical drain in place.

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