ORIGINAL ARTICLE

Day Case Surgery - An Experience at Mayo Hospital

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ABSTRACT

Background and Aims: Day case surgery account about 60 to 80 percent of cases in Europe and America, but in Pakistan this idea is still to be nurtured. The aims of this study is to evaluate the outcome of Day Case Surgery with reference to minor morbidity, to assess the acceptance by our population and recommendation and suggestions about its importance.

Methods: One hundred and twenty seven patient in OPD offered Day Case Surgery and only 46 consented for this, from Jan. 2007 to Jan.2008. After preliminary investigations and diagnosis patients were referred to Anesthetist for anesthesia fitness. Patients admitted on the day of surgery and consultants performed all the procedures. Patients discharged with detail discharge slip and post operative instructions.

Results: All of 46 patients admitted and discharged after appropriate procedure on the same day. Five patients had minor problem post operatively, two of them had pain and other three had vomiting episode of two to three time.

Conclusion: Day case surgery is accepted by patients with quite reservation due to unknown fear and unawareness about the benefits. Post operative complications were quite minor and few. If patients were council and selected appropriately , this may the best way to deal with surgical load in Government hospitals.

Key words: Day case surgery, hernia, lipoma, DCS (Day Case Surgery)

INTRODUCTION

By definition a surgical day case is defined as 'a patient who is admitted for investigations or operation on a planned non-residential basis but none the less requires facilities to recover'. So DCS exclude an overnight stay which is contrast to ambulatory surgery practiced in North America, which involves surgical treatment in 23-h units that may include an overnight stay.

Day Case Surgery is not new concept as in 1909 a Scotish surgeon, James Nicol started operating on children as a day case surgery and in 1912 Ralph Walter, an anesthetist in USA, founded his anesthesia clinic for dental and minor surgery. The acceptance of day case surgery gain momentum in 1940s when the disadvantages of prolonged bed rest was appreciated.

In spite of all the benefits of Day Case Surgery (DCS), development and acceptance is variable in different part of world. As about 60% to 80% of the operations done on day case surgery or ambulatory surgery basis in UK, European countries and USA. In Far East region Malaysia started in 1998 multidisciplinary day surgery unit which deal with Urology, Plastic Surgery, General Surgery, Paediatric Surgery and Opthalmology[9].

In Pakistan, the concept of DCS is quite immature due to unawareness of policy makers about the financial and patient benefits, non availability of such independent DCS set up and post-operative General Practitioner, home nursing follow up facilities and above all lack of public awareness[12].

METHODS

This was a descriptive sectional study and study universe was the North surgical unit, Mayo Hospital, Lahore. 127 OPD patients were offered day case surgery and only 46 consented for operation on day case basis from Jan. 2007 to Jan.2008.Patients with ASA class 1 or 2 were enrolled for the procedures which does not involve the opening of abdominal cavity and should not last more than expected time of 45 minutes with minimal blood loss of not more than 200ml. Patients with ASA class III or above, BMI more than 35 and with journey more than half an hour post-operatively from hospital to home were excluded from this study.

The selected patients were given precise instructions about the fasting for 06 hours for solid and 04 hours for liquids, time of arrival in the hospital, place and name of doctor to whom report about their day of operation. Further all the patients were advised to be accompanied with a responsible

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person able to stay and understand the steps from admission to discharge and to contact in case of problem. Pre-Anesthetic assessment were done by an Anesthetist in all patients undergoing day cases surgery under GA or local anesthesia.

All the procedure done by consultants and patients were kept in recovery room after operation till the vital reflexes had returned and then patients were transferred to reserved area in ward till discharge from hospital.

All patients were discharged after the satisfactory control of postoperative nausea, vomiting and pain. Detailed discharge slip with clearly mentioned possible complications and their management were given to patient attendant.

All the patients were called in OPD for follow up after three days postoperatively. There they were interviewed to get their views for day case surgery and postoperative evaluate proforma were filled for the outcome of procedure.

RESULTS

In this study we enrolled 49 patients out of 127 patients who were offered for day case surgery so the acceptance was only 38.58%. Three enrolled patients were refused for operation as they were not accompanied with responsible persons which account 6.12% of the cases, two male and one female. Of 46 patients 14 (30.43%) were female and 32 (59.56%) were male as shown in Table 1.

Table 1: Patients came out for operation

Gender	Total patients operated (n=46)	Total patients came for operation (n=49)	Unaccompanied patients denied operation (n=3)
Male	32 (59.56%)	34(69.38)	02(04.08%)
Female	14 (30.43%)	15(30.61%)	01(02.04%)

Among 46 patients 21 (45.65%) were operated for Hernia, 07(15.21%) for Lipoma excision, 05(10.86%) for fibroadenoma breast, 09(19.56%) for Hydrocele and 04(8.69%) patients were operated for lymph node biopsy.

Male predominance seen in inguinal hernia presentation with male to female ratio of 6:1, while equal distribution according to sex of patients with lymph node biopsy and lipoma excision was marginally more than 2% in female as compare to male.

Postoperative assessment of patients was done on the basis of our study parameter. No mortality or major morbidity seen in this study. Nausea, vomiting, pain, headach, dizziness and drowsiness were noted in postoperatively in a few patients.

Table 2: Proportion of patients according to sex and surgical problems

Problem	Male	Female	Total
Inguinal Hernia	18(39.13%)	03(6.52%)	21(45.65%)
Hydrocele	09(19.56%)	00	09(19.56%)
Fibroadenoma	00	05(10.56%)	05(10.56%)
Lipoma	03(6.52%)	04(8.69%)	07(15.21%)
Lymph node Biopsy	02(4.34%)	02(4.34%)	04(8.69%)
Total	32(59.56%)	14(30.43%)	46(100%)

Four (8.69%) patients contacted for pain at wound site which was not controlled with prescribed pain killer in discharge slip. Two them for hydrocele, one for hernia and one for fibroadenoma. Three (6.52%) patients were complaining nausea and vomiting, two were female and one male and were forced to visit to near general practitioner. About 07 (15.21%) were complaining of mild drowsiness and dizziness postoperatively which do not need any medical treatment.

Table 3: Morbidity according to sex distribution (n=46)

Morbidity	Male	Female	Total
Pain	03(6.52%)	01(2.17%)	04(8.69%)
Vomiting	01(2.17%)	02(4.34%)	03 (6.52%)
Dizziness/ drossiness	02(4.34%)	06(13.04%)	07(15.21%)

Among 46 patients 21 (45.65%) were operated for Hernia, 07(15.21%) for Lipoma excision, 05(10.86%) for fibroadenoma breast, 09(19.56%) for Hydrocele and 04(8.69%) patients were operated for lymph node biopsy.

Table 4: Morbidity according to surgical procedure (n=46)

Morbidity	Pain	Vomiting	Drossines s/dizzines s
Inguinal Hernia repair	01(2.17%)	00	01(2.17%)
Hydrocele	02(4.34%)	01(2.17%)	01(2.17%)
Fibroadeno ma Excision	01(2.17%)	01(2.17%)	00
Lipoma excision	00	01(2.17%)	04(8.69%)
Lymph node Biopsy	00	00	01(2.17%)
Total	04(8.69%)	03(6.51%)	07(15.21%)

Evaluation of patient satisfaction was done on the basis of their comments in postoperative evaluation proforma completed on their follow up visit in OPD. Of 46 patients 41(89.13%) considered day

case surgery is better with wonderful outcome of their operation. Five (10.86%) patients do not satisfied with the operation in day case surgery as they thought early discharge causes suffering with pain and vomiting.

DISCUSSION

Day case surgery was established to reduce the cost of inpatient beds and to achieve the high patient throughput, leading to a reduction in waiting lists. Patients accept this concept readily as the day case surgery involves minimal disruption to their personal lives. However, these benefits are only significant if day case surgery is demonstrated to be as safe and as satisfactory to patients as inpatients.

Day case surgery is a new concept in Pakistan and relevant data regarding DCS for comparison from our own country is not available. This study emphasized the importance of day case surgery, preoperative selection of patients, minor morbidity and patients satisfaction were the corner stones to be evaluated and compare with studies from abroad.

In this study the postoperative assessment was done in OPD by filling a proforma by Medial Officer while in Bain et al[12] study a questionnaire was completed within two week of operation by the patient. Further if patient did not come for follow up he was contacted through mobile phone to fill the proforma in our study. Only 69% patients came to OPD for follow up and recorded their interview and 23% contacted through their cell phone for follow-up and only 8% did not respond at all. On other hand response rate was 43% to 82% in Bain J study. As shown in Table 5 that 92% response rate in this study which is comparable and better than a questionnaire. However, as majority of our patients were unable to read and write so filling the questionnaire was out of question and we opted for a proforma being filled by MO.

Bain J study was based on 25 different procedures encompass specialties so to compare variable become difficult and unjustifiable. However, if we compare pain variable it was 26% in Bain J and only 15% in this study. Readmission were 7.8% against none in our study.

Nausea and vomiting 19% in Hunter JD et al[6] while its 8% in our study which is quite low as shown in Table : 6 . This is mostly due to patients selection and type of operative procedures involved. As we performed only 07 procedures as compared to 23 in Hunter JD et al.

We offered DCS to 127 OPD patients and only 46 (36.22%) consented for the purpose rest opted for inpatients treatment which is quite contradict to Hunter JD et al where 94% opted for DCS. This contrast to our population mostly due to unawareness about the DCS and its benefits.

Table 5: Comparison between our study and Bain J et al Study (32)

Parameter	Bain J et al study	Our Study
Total Patients	5089	46
Response	3193 (63%)	42 (92%)
Pain	894 (26%)	04 (8.69%)
Other Problems	783 (23%)	07 (15%)
Readmission	265 (7.8%)	00
Called GP	00	02 (4%)
Patients' satisfaction	4309 (85%)	42 (92%)

Table: 6: Comparison between our study and Hunter JD et al Study (6)

Parameter	Hunter et al study	Our Study
Total Patients	635	46
Responded	553 (87%)	42 (92%)
Pain	221 (40%)	04 (8%)
Vomiting	105 (19%)	03 (6%)
Readmission	00	00
Visited GP	33 (06%)	03 (6%)
Patients dissatisfaction	92 (17%)	05 (10%)

CONCLUSION

This study showed that our population can readily accept the concept of Day Case Surgery however with certain reservations.

This need public awareness about the benefits of DCS and the policy maker need to be more realistic in reducing the cost of hospital management of inpatient treatment by promoting and making independent unit of DCS and more and more facilities of DCS at root level to curtail the cost of patients' operative management

Day Case Surgery can decrease the financial cost of patient and Government if DCS Unit establish and work as independent hospitals, a proved fact[3].

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