

Day Case Surgery: An Experience at General Hospital

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ABSTRACT

OBJECTIVE: To find out the results of day case surgery at secondary health care hospital in terms of early complications, cost of surgery, hospital stay and patients compliance.

DESIGN AND DURATION: Prospective descriptive study from July 2009 to December 2011.

SETTING: Department of surgery civil hospital/ city medical centre Jacobabad.

PATIENTS: Three Hundred Fifty (350) patients who underwent day case surgery were included in this study.

METHODOLOGY: The patients work up and counseling were done before, and asked to come on given date and time on the day of surgery again evaluated and shifted to operation theatre. After surgery they were kept for an average time under observation for 05 to 23 hours sent to home and strictly advised to contact the surgeon or hospital in case of problem. There follow up were advised accordingly on the 3rd and 7th post operative days.

RESULTS: Total number 350 patients, 233 cases were males and 117 were females. Their age ranged from 6 months to 73 year. All patients went to their home within 05 to 23 hours. During follow up 43 telephone calls (mobile) were received for complaints and medications, 12 (3.42%) of them advised to attend OPD before 3rd POD. On examination of these patients 6 (1.71%) had bleeding at the wound site, 5 (1.42%) had pain at the site of surgery one (0.28%) of them developed retention of urine, 3 (0.85%) of them were readmitted while remaining were treated as OPD cases. Five cases were apprehensive and continued admission for another 24 hours on their own request.

ONCLUSION: In selected cases day case surgery is cost effective subject to availability of good communication approaching the surgeon in case of any complication and emergency with skilled hands day case surgery may be cost effective with shorter post operative stay in hospital. Thus district hospital may be utilized for day case surgery with appropriate measures following the international guide lines for day case surgery.

KEYWORDS: Day case surgery, complications ,patients compliance, communication in rural areas.

INTRODUCTION

Certain surgical procedures in selected patients can be carried out with safely returning home on same day which also decrease the burden on tertiary hospitals. This trend is increasing day by day from tertiary care centers to district level hospital as well, and carried out worldwide.(1)

In early 20th century Nichollos J reported a series of day case children patient in 1909 in which he operated more than 9000 patients (2). Later on in 1989 the Royal College of Surgeons formed British Association of day case surgery to provide surgical services to increase the confidence of patients, reduce the cost, decrease the complications following the ASA criteria I or II.(3).

The concept of day case surgery is internationally recognized now a days but can be implemented in remote areas of Pakistan by implementing internally accepted criterion for day case surgery. These altera-

tions are needed to encourage the concept. Due to certain obstacles in rural areas, like poor care facilities, illiterate patients, inadequate and improper transportation which needs to be improved. The improved mobile phone communication has decreased the gap between patients and hospital thus day case surgery is growing in our setup(4)&(5).

METHODOLOGY

Total 350 patients were selected and counseled, pre-operatively investigated diagnosed and evaluated.

Inclusion Criteria

Minor and intermediate General Surgical cases falling into ASA category I or II were admitted.

Exclusion Criteria

ASA category III or IV (major surgery) and minor surgical patient dealt in emergency or OPD were excluded.

Day Case Surgery

On planned given date and time patients were admitted in the ward, operated and observed carefully, inquired about drowsiness, nausea, vomiting dizziness, examined vitals properly, concentration were given on pain, bleeding at the site of surgery. Responsible attendants who look after the patient advised that in case of problem bring the patient to the hospital and guided with following instructions, otherwise to attend OPD on 3rd and 7th post operative day.

Contact telephone/mobile no of hospital RMO and Surgeon

The attendant to get in touch in case of vomiting/pain/bleeding or other problem.

Prescription clearly written and advocated properly.

The use of medication and side effect.

The patients were advised for follow up or when ever required to attend OPD.

The Proforma designed on flow sheet to find out the results of study, complications, patients compliance and cost of procedure.

RESULTS

A total no of 350 patients, 233 were males and 117 were females with age ranging from 6 months to 73 years were included in this study. The details of procedures are given in Table I, after surgery these patients were sent to home as day case, with strict instruction given about medication and in case of problem advised to the responsible attendant and patients to communicate Hospital Staff.

In this series 43 (12.28%) telephonic calls received within 72 hrs, before regular 3rd postoperative day visits out of them 12 patients (3.42%) were advised to attend emergency/OPD for their complaints in which 6 (1.71%) had bleeding, 5 (1.42%) cases have pain at the site of surgery and 1 (0.28%) patient developed retention of urine. Among them 3 (0.85%) were readmitted while remaining dealt in OPD (Table II). All patients were satisfied on reply of questionnaire at 3rd

and 7th post-operative day, during their follow up. Except 05 requested to continue their stay for another day on their having problems of communication, and 31 (8.82%) were scared to go to their home but were counseled and sent home, later asked about their early discharge after surgery, the reply was satisfactory.

TABLE I: PROCEDURES CARRIED OUT AS A DAY SURGERY WITH HOSPITAL STAY (n = 350)

Procedures for Surgery	No.	(%)	Anaesthesia	Stay Hrs.
Inguinal Hernia (adults)	97	27.71	Spin/Gen	5-15
Inguinal Hernia (children)	61	17.42	General	2-05
Fissure/Fistula/Hemorrhoids	43	12.28	Spin/Gen	5-15
Hydrocele / Varicocele	32	9.14	Spin/Gen	2-5
Lymph node Biopsy	31	8.85	General	2-5
Rectal Polyp	31	8.85	General	2-5
Urethral Dilatation	15	4.28	General	2-5
Vesicle Calculus (children)	14	04.0	General	0-10
Breast Lump	11	3.14	General	5-15
Orchidopexy	07	2.0	General	2-5
Pilonidal Sinus	05	1.42	Spinal	10-15
Elective appendectomy	03	0.85	General	10-23

TABLE II: COMPLICATIONS BEFORE 3RD POST OPERATIVE DAY IN DAY SURGERY CASES (n=350)

Procedures →	Fistula/ fissure in ano	Adult inguinal hernia	Pilonidal sinus	Elective appendectomy	Vesicle calculus	Breast Lump	Total
Complications (n=12) ↓							
Bleeding at Wound site	2	1	2	----	----	1	6 (1.71%)
Pain at site of Surgery	3	---	----	1	----	1	5 (1.42%)
Retention of urine	----	----	----	----	1	---	1 (0.28%)
Re-Admission (n=3)	1	----	-----	1	1	----	3 (0.85%)

DISCUSSION

The concept and practice of day case surgery is not far to implement in third world countries and all over the world after specific facilities, pre operative patients selection and post operative proper care with modern equipments sutures and medications and communication are established resources.

In our set up the concept of day case surgery is growing and most of tertiary care hospitals have established this trend extending to well equipped secondary care hospitals, while in UK about 50% and in USA 60% cases of elective surgeries are carried out as a day cases (6)(7). In our study of 350 cases 43 (12.28%) had contact with consultant or hospital staff for their complaints, 0.85% required readmission which is lower than study of Ghosh S (8) whose 25% cases contact to the hospital, and 1% require readmission. After discharge post operative pain 1.4%, bleeding at wound site 1.7% observed in our study before 3rd postoperative day visit which mimic with the study of Mitchell M (9). Phillips et al (10) treated 354 cases who kept the patient up to 23 hrs as a extended day surgery also matches the hospital stay hours (05-23 hrs) with our study carried out at secondary care level hospital. As the hospital stay decreases, the cost of surgery ultimately lower down and indoor bed side load decrease resulting in improvement of economy in health delivery system.

The patients acceptance for day case surgery was the difficult part of our study because of complications and older concepts about wound care and recurrence. Later on after counseling and operation, the patient were happy with the decision and expressed satisfaction on follow up. Patients and their relatives familiarity about surgery pre and post operative care is important part of day care surgery (11). Our study included the variety of procedures almost comparable with national and international studies (12). The re-admission ratio and complications were low and almost acceptable to the recommended standard (13)(14), and it is cost effective (15). In developed world emergency procedures like acute cholecystitis, appendicitis are carried out as routine day care cases(16), even awake craniotomy for tumor resection are performed (17).The guidelines of day surgery are well established (18) certain changes are required at secondary care level hospital to perform extended day case surgery (19) and ASA criteria I and II guidelines should be implemented and audited regularly (20). The supervised training of surgeons and staff is necessary for these specialized units(21)and selected emergency cases (22) also carried out here in our setup to decrease indoor bed side load in hospitals.

CONCLUSION

Day case surgery in selected cases is cost effective and safe even at secondary care hospital level, with available communications system like mobile phone and road linkage in rural areas. Majority of the patients were satisfied. Average hospital stay was 5 to 15 hrs, without major complications. Twenty Three hours Hospital stay is suggested to include in international guidelines for day case surgery.

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