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A Study of Day Case Urology in Children: Our Experience

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Abstract

Aim: To analyse the day care urologic surgery cases in various paediatric surgical units in tertiary care centers in Bhopal. *Material and Methods:* This is a retrospective study; we reviewed the data of all urologic patients treated at two day case Paediatric surgery units between June 2012 to June 2018. The parameters studied were: age, type of surgery/ procedure, and complications. *Results*: In total, 200 urological cases were performed in the major operating theatre on day case basis. 102 (51.0%) patients were children aged between 4-6 years of age. Most of the cases in this series were males. Phimosis 62 (31%) was the most common surgical condition treated surgically, followed by congenital hernia 44 (22%) and hydrocele 42 (21%). Local oedema (05%) was the commonest complication observed in these patients. *Conclusion:* The experience and outcome of the day case surgeries in this study shows encouraging results. Pediatric day care anesthesia and surgery is safe and practically helpful. Patient selection criteria, good setup, and adequate post operative care are needed for good results.

Keywords: Day Care Urology; Day Surgery Unit (DSU); Phimosis.

Introduction

Day case surgery (DCS) is a effective and economical way to treat pediatric surgery patients. A day-case surgery episode is an admission involving a procedure that does not include a night in hospital (a transition past midnight). In developing countries like India waiting period of pediatric patients, for Surgery is very high Recent studies have indicated that day care surgery or ambulatory surgery (AS) can offer significant advantages over inpatient surgery [1].

In India day care surgeries are still a new concept in health care [2]. DCS is good and safe practice to cater surgical problems effectively in children [3].

Several advantages of DCS are less cost on the patient and good hospital beds utilization. Patients coming from nearby rural areas where there are financial and work constrains, parents are happy with the same day admission and discharge.

During this time, the day surgery unit (DSU) was introduced by Walter Reed and since then there has been increased improvement in the management of patients on a day case basis and an improvement of methods of anesthesia ensuring patients safety [4,5].

This study aims to identify the scope of day case urologic surgery in Paediatric surgical units.

Material and Methods

This is a retrospective study of the records of the Paediatric surgery urology patients in two tertiary care centers and covers a period of six years (June 2012 to June 2018). The data of paediatric surgical patients admitted for urologic day care procedures were analysed. The data were collected in a proforma and analysed using SPSS version 13 using simple statistics.

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Observations

Table 1: Showing age wise distribution of patients
N-200

Age (Years)	Number	Percentage
0-3	30	15
4-6	102	51
7-10	52	26
11-14	16	08

Table 2: Showing case wise distribution of patients
N-200

Diagnosis	Surgery	Number	Percentage
Phimosis	Circumsicion	62	31
Congenital hernia	Herniotomy	44	22
Congenital hydrocele	Herniotomy	42	21
Undescended testis	Orchiopexy	25	12.5
Hypospadias with stenosis	Meatotomy	10	05
Vesical Calculus	Suprapubic cystolithotomy	07	3.5
Stricture Urethra	Suprapubic cystostomy	05	2.5
DJ stent	Removal	05	2.5

Table 3: Showing Post op surgical complication N-200

Complication	Number	Percentage
Wound infection	6	03
Haematoma	3	1.5
Local oedema	10	05
Bleeding	4	02
none	177	88.5

Results

In total, 200 urological cases were performed in the major operating theatre on day case basis. 102 (51.0%) patients were children aged between 4-6 years of age. Most of the cases in this series were males. Phimosis 62 (31%) was the most common surgical condition treated surgically, followed by congenital hernia 44 (22%)and hydrocele 42 (21%). Local edema (05%)was the commonest complication observed in these patients..

Discussion

In developing countries like India the success of a pediatric DCS unit depends on careful patient selection, with the provision of adequate pre-operative and post-operative care. Several studies have shown the safety and efficacy of day care anesthesia and surgery in pediatric patients [6]. The best aspect of DCS was parent's satisfaction. Few hour stay in hospital led to minimal disturbance of routine work of parents and their occupational activities. Part of the requirement for a successful day case surgery practice anywhere is the availability of good anaesthesia. A patient under going day case surgery must recover quickly from anaesthesia and ambulate early. Day care surgeries are comparatively inexpensive and affordable in all socioeconomic classes. Another benefit for the patients is the patients are called on the day of appointment without the fear of cancellation of surgery due to emergencies or shortage of beds in hospitals. Health care providers benefit from day care procedure for patients as the turnover is faster and more patients can be operated in short time. The role of cost effective anaesthesia, particularly short acting anaesthetic drugs, in this regard is well established [7]. Studies have shown that day case surgery is well accepted by patient seven in our environment [8]. Intubation should be used appropriately in paediatric DCS and there should be no inhibition to use endotracheal tubes because of excessive concern of post-intubation croup [9]. Minor complications occur as frequently in paediatric DCS as with adults and various complication rates have been reported in children, however admission is seldom required because of them [10]. Indian Association of Day Care Surgery started in 2003 but stillit is in its initial stages. The major reasons seem to be a lack of awareness of the facilities among patients and their relatives, fear of complications, distance of hospitals from their residence as well aslack of health professionals geared to offer these procedures. Health insurance companies in India also lack the insight to provide for daycare surgeries and insist on more than 24 hours admission to avail the claim.

Limitations of Study

In our study we assessed the prevalence of day care surgeries being performed in a tertiary care hospitals.

We have not analyzed the other aspects of the surgery such as mean duration of surgery, the length of the surgery and anesthesia. Another drawback is that we could not compare between inpatients and day care surgeries in terms of cost effectiveness and patient satisfaction as it was a retrospective study.

Conclusion

There is an immediate need for more dedicated day care centers for rapidly helping the patient load. There is also a requirement for increasing awareness programs for patients and health care providers in the Indian sub continent.

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