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THE BENEFITS OF OUTPATIENT SURGERY OVER SURGERY IN THE HOSPITAL: REPORT OF 4177 UROLOGIC OUTPATIENT OPERATIONS*

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ABSTRACT

From 1983 until 1987, 4177 outpatient urologic procedures were performed at Shahid Labbafi Nejad Medical Center. 34% of the cases were open surgical, while 66% were endourologic procedures. There was no surgical complication related to the outpatient aspect of the procedure. Rate of infection in open surgical cases was almost zero. The number of procedures was increased each succeeding year. Also more difficult cases (like penile prosthesis, epididymovasostomy, priapism, sphincterotomy,...) were included in the program. We recommend outpatient surgery as one of the best approaches to make surgery much more economic and if properly done, still offer better quality care to the patient.

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INTRODUCTION

During the last decades, there have been many changes in the field of surgery, one of the most exciting of which has been the popularization of outpatient surgery. Dr.J.H. Nicoll was the first to report a considerable number of outpatient surgery procedures (7320 cases) in 1909.[1] He reported his experiences about herniotomy, abdominal section, and other operations on children which were performed as outpatient. The term "outpatient" was however first used by Dr.B. Waterhouse.[2] Dr.R. Waters was one of the first to publish an article on the concept of outpatient surgical facilities.[3] The most encouraging approach was due to the efforts of W.A. Reed by founding his surgicenter in Phoenix, Arizona.[4] Gradually, other centers also adopted outpatient surgery more frequently. Ophthalmologists, ENT specialists, plastic surgeons and ob. & gynecologists were among the first specialists who started using outpatient surgery.[5] Urologists started doing outpatient surgery somewhat later and are just beginning to realize the suitability of many aspects of their speciality to the outpatient setting.[6]

MATERIALS AND METHODS

Between the years 1983 and 1987, we have performed 4177 urologic procedures as outpatient (OP). Of these procedures, 1414 cases (34%) were open surgical and 2763 were endourologic procedures (66%). Patients were first seen in our clinic, where they were scheduled for the OP surgery. We usually specified our operating room facilities two days of the week for OP cases. Occasionally more urgent cases (internal urethrotomy, sphincterotomy or patients from other

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TYPES OF OUT PATIENT UROLOGIC SURGERY (Total 4177)
IN SHAHID LABBAFI-NEJAD MED.CENTER (TEHRAN)

Open Surgery	Number	Endoscopy	Number
Varicocele	250	Cystoscopy	1743
Hydrocele	134	Urethrotomy	323
Undescended testis	137	Urethral dilation	255
Testicular biopsy	213	Sphincterotomy	91
Circumcision	274	Bladder tumor resection	85
Cystolithotomy	33	Cystolitholapaxy	59
Meatotomy	105	Posterior urethral valve resection	29
Repair of hypospadiasis (Magpie)	31	Basket of ureteral calculus	25
Corpus cavernosum rupture	11	Urethroscopy	38
Cystostomy	85	Retrograde of ureter	19
Epilation	46	Bladder biopsy	23
Repair of urethral fistula	22		
Spermatic vein Ligation	5		
Testicular torsion	5		
Exploration of testis	17		
Spermatocele	8		
Epididymovasostomy	16		
Epididymectomy	2		
Spermatic cord cyst	3		
Meatoplasty	6		
Priapism	4		
Scrotal foreign body excision	7		
Sub. Total	1414	Sub. Total	2063

cities) were done on other days, between elective inpatient operations. Patients of all ages were included in our OP program (newborn, infant, older children, adults, and elderly patients) without any limitation as far as age is concerned. Different levels and kinds of anesthesia were used, depending upon the type of surgery scheduled. These included no anesthesia, local anesthesia, general anesthesia with or without intubation, and spinal or epidural anesthesia (rarely). Patients were followed in our outpatient office (located in the same medical center) within a few days up to 2 weeks. Clean elective cases (orchiopexy, varicocele...) usually do not receive antibiotics. When the possibility of contamination and infection is high (infected urine, during sphincterotomy, urethrotomy, penile prosthesis) para- and intra-operative antibiotics are used. Different kinds of procedures including open surgical and endourological cases were included and gradually more difficult operations entered the program (penile prosthesis, bladder stone, epididymovasostomy, penile fracture...) (Table I), and the number of the procedures used gradually and steadily increased (Figs. 1,2).

RESULTS

Results were rewarding. Postoperative wound infection was not seen, Few complications, including hemorrhage or hematoma was noted, but was related to the nature of the procedure itself rather than being due to OP type of surgery (e.g. two hematomas following varicocele repair). The majority of patients tolerated OP procedures better compared to inpatients and felt less sick at home rather than staying in hospital where they feel more sick psychologically. They usually resumed their normal activities sooner when the procedure was done as OP. Patients are evaluated clinically in outpatient offices where related laboratory studies are requested and evaluated. A capable person (family) is asked to accompany the patient on the day of OP surgery. The patient should not take anything by mouth for at least 6 hours prior to scheduled surgery and proper shaving instructions regarding the operation site is also given. On the morning of surgery, the patient or the accompaniment is sent to admission to prepare the outpatient chart and make financial accommodations according to the rules of the medical center. Then proper clinical evaluation and thorough physical examination related to anesthesia are done by the recovery room nurses and anesthesiologist. No preop test is required if patient's general condition seems normal in reviewing the past history and in the physical examinations. If any particular question arises or any abnormality is found (history of epistaxis, diabetes, hypertension, cardiac diseases) pertinent diagnostic studies are done (ECG, chest X-ray, CBC...), However. Many of our patients did have

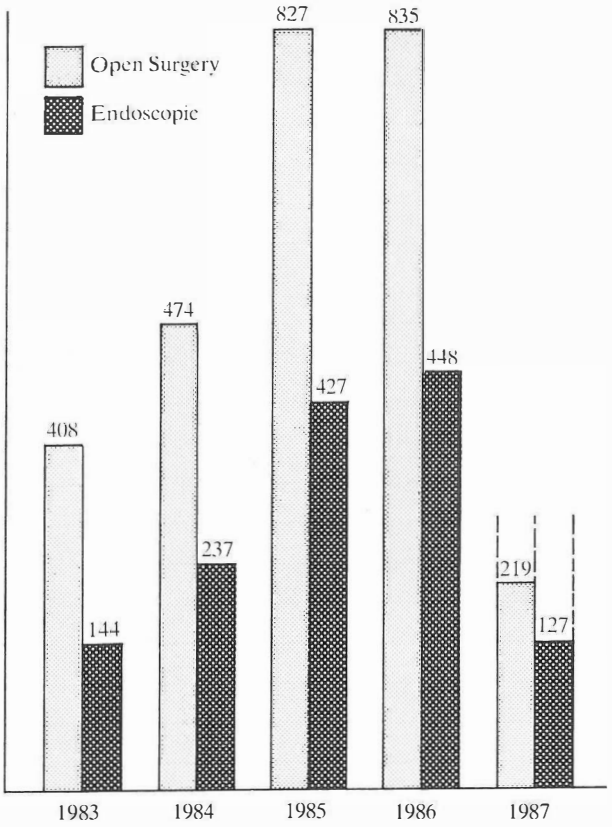

Fig. 1.: Outpatient Urologic Surgery in Labbafi Nejad Medical Center 4177 cases from 1983 until 1987. Tehran, Islamic Rep. Iran.

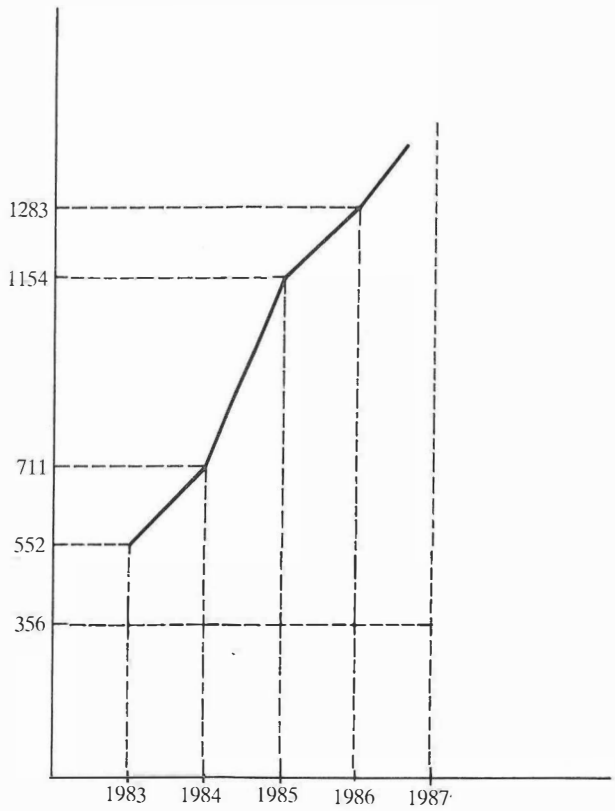

Fig. 2.: Growth pattern of 4177 outpatient urologic procedures. Labbafi Nejad Medical Center. Tehran, Islamic Rep. Iran.

urinalysis and some other tests upon referral. During surgery careful monitoring of the patient is performed by ECG monitoring and frequent blood pressure controlling, if general or spinal anesthesia are used. Following the procedure, the patient stays in the recovery room until full recovery from anesthesia and is discharged in the same evening after permission for discharge is given by the surgeon and anesthesiologists. Only very rare cases might stay overnight.

DISCUSSION

Outpatient surgery had made tremendous developments in recent years and is being more accepted by patients, health centers, and authorities. This is in fact one of the most important changes in the field of surgery affecting both patient care and especially decreasing the medical cost to the benefit of the patient and the society. There are many reasons for this trend. The main concern of health " care" has been sick patients, so it has been difficult for the well patients to gain entrance to the system. More elective and minor cases are easily cancelled in the benefit of more serious or urgent operations.[7] We started and gradually increased OP in our medical center, since we found it difficult to have many of our patients admitted to the hospital and also patients especially parents, preferred the outpatient type of approach much better than doing the same procedures as inpatient. We also found it much more economic for both the patient and health care system. If we consider that each hospitalization day costs 5000 Rials, also considering average hospitalization for each open surgery as 4 days and for endourologic procedures as 2 days, we have saved about 50,000,000 Rials ($ 700,000) by performing these procedures as outpatient rather than inpatient.

The benefit of OP surgery is so obvious that now it is gaining popularity in most of the specialties and the physicans of today are learning more about how to perform the outpatient procedures. Of the many benefits of outpatient surgery we can count the following advantages over in hospital sugery:

1- It is much more cost effective.

2- It is less stressful to the patient (more acceptable by majority of patients). This is especially true for children, since being away from the family or parents is too much of a burden to the young child. They can get better private care at home in a more tender and warm environment.

3- There is less chance of infection at home, since there are no hospital acquired organisms which are usually

resistant to the majority of antibiotics.
4- Earlier ambulation of the patient and sooner going back to work has still more economic benefits to the society.
5- By popularization of OP surgery less medications are used and less laboratory tests done (which are usually done routinely during admission designed for major surgery).

In conclusion, considering our rewarding results of 4177 cases, we strongly suggest that others especially third world countries' health authorities adopt and enter this strongly beneficial mode of surgery to their health care system. This will enable them to save money for spending on more vital areas of medicine in the society like preventive medicine or to be able to buy better technology to be used for serious cases, rather than spending and in fact wasting their economy by continuing to do inpatient surgery, for those cases can be done as outpatient.

REFERENCES

1- Nichole JH: The surgery of infancy, Br.Med. J.,2:753, 1909
2- Thurm RH: Doctor Benjamin Waterhouse and the Boston Marine Hospital. Ann. Intern. Med., 76:801, 1972.
3- Waters RM: The down town anesthesia clinic. Am.J .Surg., 33: 71, 1919.
4- Reed WA: The surgicenter experience. Contemp. Surg., 20: 66, 1982.
5- Urologic Clinics of N.Am. 14-1, 1987.
6- Kaye KW: Preface, Outpatient Urologic Surgery, Lea & Febiger, Philadelphia, 1985.
7- Crouch BL: Free standing outpatient surgical units. Outpatient Urologic Surgery: Keith W Kaye, Lea & Febiger, Philadelphia, 14-23, 1985.

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