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The role of outpatient pediatric surgery

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Summary

A total of 1574 outpatient pediatric surgical procedures were performed at the Central Emek Hospital between 1984 and 1986. Pediatric outpatient surgery can be a safe, inexpensive and effective means of health care treatment. The successful program required careful case selection, full operating and anesthetic facilities, and good follow up procedures. Parental opinion was consulted, and advantages and problems evaluated.

There are many problems of health care treatment in our country, among them are limited facilities for inpatients due to a shortage of beds, also operating theaters, and paramedical teams. These limitations could partially be overcome by expanded outpatient surgical care. The concept of pediatric surgical day cases (1,2,3) is not a new one. Facilities and standards of care must be comparable to those provided for inpatients.

Key words: Outpatient pediatric surgery, surgical day cases, health care treatment

Material and method

Central Emek Hospital constitutes a referral center for a mixed Jewish and Arab population of 250,000 people. 1,250 patients underwent surgical procedures on an outpatient basis between 1984 and 1986. The procedures commonly performed at the hospital are shown in Table I.

After confirming the diagnosis and the need for surgery, only children without major or systemic pathology became candidates for day surgery. The parents were then given the date and time to report for surgery. In addition they received written instructions concerning organization, procedures, fasting, and physiological aspects. Several days before surgery, hemoglobin levels and urine tests were routinely checked.

The day before the operation the child was examined by a resident, and the anesthetist scheduled for the operation. If all is normal, the child was discharged and presented for surgery directly to the day hospital. The patients and their parents arrived early in the morning and stayed together in a waiting area until the children were taken to the operating room.

Anesthesia:

The anesthetic agent should be as short term acting as possible to reduce the postoperative recovery time. Patients older than one year, receive Scopolamine and Neurolidol as premedication. Nitrous Oxide and Halotane was used for induction, and maintenance therapy was administered through a well-fitting face mask. Endotracheal intubation was performed in babies less than six months old, or neck procedures.

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TABLE I. The list of outpatient surgical procedures commonly performed at our hospital

Uniteral inguinal hernia	325
Bilateral inguinal hernia	258
Hydrocele	149
Orchidopexy	235
Circumcision	68
Umbilical hernia	49
Lymphnode biopsy	20
Other	145

Operative and postoperative care:

Surgery was performed with small infants receiving top priority. Standard surgical techniques were used in all patients. Skin closure was performed by means of Histoacryl. No dressing was used except in the case of umbilical hernia repair, when a small pressure dressing was applied to the wound to prevent hematoma. The patients were stable, then they were returned to the care of their parents in an area adjacent to the operating room, remaining under medical supervision until they were fully

awake and ready to go home, usually 2 - 3 hours after the operation.

Results

There were no deaths or major complications. The incidence of all complications was 1.9%, the main complications were:

partial openings of wound incision	0.5 %
superficial wound infection	0.8 %
chest infection	0.6 %
anesthetic problems	0.5 %

It was necessary to admit several patients (about 2%) to the surgical ward following surgery when anesthetic problems appeared, in delayed recovery, or with transport problems.

Discussion

Outpatient pediatric surgery has been widely practiced since 1939 when Herzfeld[4] in her classic article reported sending patients home two hours after operation. During recent years this practice has become more widespread because of the improvement in anesthetic and operative techniques.

Many studies have been undertaken to evaluate the effectiveness of pediatric surgery day cases [5]. At the Central Emek Hospital 100 parents, of children admitted for surgery, were interviewed one week after the operation. Preoperative preparation of parents and child, instructions, hospitalization arrangements, postoperative care, and psychological disturbance were all evaluated. The results showed that the day hospital pamphlet with all pre- and postoperative instructions, available in Hebrew and Arabic, was very useful. Toys and occupational items for children and parents were also found to be important. 10% of the patients were afraid to return home. Several of them were allowed to stay overynight. No particular problems developed in patients discharged, and no severe psychological trauma was found.

Conclusions

After our successful experience (aswell as other studies) we suggest that day surgery can play a central role in the pediatric surgery field.

The advantages of outpatient surgery are self-evident, these include very low infection rates, increased availability of beds for inpatient care, lowered cost, shortened waiting lists, limited family disruption, and avoidance of the adverse psychological effets of hospitalization. To ensure the success of this system, we should choose the most suitable patients, and provide a competand anesthetic and surgical team.

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